



Microbiology MCQ

خاص بامتحان الهيئة السعودية للتخصصات الصحية
(التحليل الطبية)
لاخصائى وفنى الميكروبيولوجى

جروب الجالية المصرية لاختصاصى التحليل الطبية بالسعودية
جروب مذاكرة الميكروبيولوجى

Mohsen Haleem

1-امتحان بكالوريوس الميكروبيولوجى.(الاصصائى)

يوجد فى مصر و السعودىة)بيكون الامتحان فى الميكروبيولوجى فقط :
امتحان كمبيوتر اختيار من متعدد

: مسمى الامتحان
SCHS microbiology Baccalaureate

: مين بيدخل الامتحان دة

الحاصل على بكالوريوس ميكروبيولوجى -
او الحاصل على ماجستير ميكروبيولوجى
او الحاصل على الدكتوراة فى الميكروبيولوجى

: التصنيف بعد النجاح

لو المتقدم معاه بكالوريوس ميكروبيولوجى فقط هيتصنف بعد الامتحان فنى ميكروبيولوجى
لو المتقدم معاه دبلومة او ماجستير او دكتوراة فى الميكروبيولوجى بعد بكالوريوس الميكروبيولوجى هيتصنف اصصائى
ميكروبيولوجى
لو المتقدم معاة ماجستير فى الميكروبيولوجى بعد بكالوريوس العلوم اى تخصص هيتصنف اصصائى ميكروبيولوجى

الملخص : الامتحان دة للى معة بكالوريوس ميكروبيولوجى وايضا للى معاه ماجستير وللى معاه دكتوراة
فى ناس هتدخل نفس الامتحان واحد هيتصنف اصصائى وواحد هيتصنف فنى وعرفنا الحاليتين
2-امتحان فنى ميكروبيولوجى

(بيكون فى الميكروبيولوجى فقط) يوجد فى السعودىة ومصر :
امتحان كمبيوتر اختيار من متعدد

:مسمى الامتحان
microbiology technician

: مين بيدخل الامتحان دة
الحاصل على دبلومة ميكروبيولوجى بعد بكالوريوس علوم (اى تخصص) غير بكالوريوس الميكروبيولوجى

طبيعة ومحتوي امتحان فني/اخصائي احياء دقيقة
(70 MCQs, 2 hours)

45%نسبة نجاح فنى الميكرو) سواء بكالوريوس ميكروبيولوجى فقط بعد خبرة سنتين او اى بكالوريوس علوم اى قسم
اخر مع دبلومة ميكرو)
60%نسبة نجاح اخصائى الميكرو (اللى هو بكالوريوس ميكرو او ميكرو + كيمياء مع دبلومة ميكرو طبية او بكالوريوس
ميكرو طبى)

1-Growth Media, Staining Techniques, and Presumptive Identification	26%
2- Urinary and Genital Tract Infections	11%
3- Respiratory Tract, TB, and CNS Infections	24%
4-Blood Sepsis and Blood Asepsis	6%
5-Gastrointestinal Tract Infections	6%
6-Immunology and Diagnostic Virology	20%
7-Mycology and Parasitology	7%
Total	100%

وصايا الهوارى

#أمين الهوارى

أنا لو داخل إمتحان أخصائى/بكالوريوس ميكروبيولوجى أذاكر منين ؟؟
مرحلة المذاكرة:

حضر نوت بوك كويس وقلمين واحد احمر وواحد ازرق وطرييزة وكرسى
على الطرييزة لازم يكون فيه كتابين:

كتاب مونىكا الجزء الثانى كله و كتاب مونىكا الجزء الاول : باب الباراسيتولوجى فقط
هتذاكر كويس جدا .. بمعدل 3 ساعات يوميا كل كلمة كل حرف كل اورجانيزم وكل صب سبيشيس كمان
هنبداً بالكتاب الجزء الثانى

.....
خطة المذاكرة:

.....
مقدمة الكتاب:

من صفحة 1 - صفحة 70 هتلاقى الاتى:

نبذه عن معامل الميكروبيولوجى كمقدمة ثم تقسيمات وخواص الكائنات الدقيقة المهمه طبيا .. ثم طرق الفحص الميكروسكوبى .. وطرق الزرع

والاوساط الغذائية ..واخيرا الاختبارات التفريقية للبكتريا.
الجزء دا مهم وبيجي منه اسئله كثير جدا ركز ومتدخلش ع اللي بعده الا لما تكون ذاكرته كويس

البكتريا:

1-هتبدأ من صفحة 157 الى صفحة 234
دول فيهم كل ميكروب وتحتة خواصه وكل مايدور حوله باختصار
بعد ماتخلص دا .. انت كدا راجعت كل البكتريولوجى نظرى

.....

2-هتذاكر المزارع من صفحة 76 الى صفحة 132
وبكدا انت لما هيقلبك اورجانيزم هتبقا عارف هو مين لانك ذاكرت عنه ف الجزء الاول

.....

3-المضادات الحيوية واختبارات الحساسية من صفحة 132 الى صفحة 143
بعد ماتخلص دا .. انت كدا ذاكرت كل البكتريولوجى (المزارع) عملى
ملحوظة :

لو انت شغال ف الميكروبيولوجى ف الفتره دى هيساعدك جدا لانك كمان هتطبق الكلام دا ف شغلك وهيثبت المعلومه عندك
خلصت مذاكرة البكتريولوجى ومزارعه كدا انت تمام جدا

الفيروسات:

هتذاكر من صفحة 248 الى صفحة 266
الجزء دا صعب لكن من رحمة ربنا ان اسئلته ف الامتحان مش كثير
ملحوظة:

فيه جداول ومخططات ف الكتاب متعديهاش لازم تتذاكر لانها مهمه جدا وبتسهل عليك عملية الحفظ واسترجاع المعلومه

الفطريات:

من صفحة 235 الى 248 ف الكتاب هتلاقى شرح للفطريات ذاكرهم كويس وركز ف الامراض والفرق بينهم ف الشكل

بكدا انت ذاكرت الاساسيات +البكتريا + الفيروسات + الفطريات

ملحوظة:

فيه جزء زى اطلس ملون ف الكتاب لازم تطلع عليه لتنشيت المعلومات

الباراسيتولوجى:

فى كتاب مونيكال الجزء الاول شابتر الباراسيتولوجى

من صفحة 178 الى صفحة 306

هتقسمهم برأحتك وتبدأ فيهم واحده واحده لحد ماتخلصهم

ملحوظة:

اوعا تذاكر الجداول بس وتقول الباراشي مش يجى منها كثير .. خلى بالك اسئله الباراشي صعبة خصوصا طفيليات الدم

الحدوة دى كلها تاخذ 30-40 يوم بالظبط بمعدل 2-3 ساعة ف اليوم

خلصت مذاكره خالص كله تمام .. عملت زى ماقولتك بالحرف .. سجلت كل النفاط اللى محتاج ترجعلها تانى .. ايقنت انك عديت على كل شىء ف اللي
قولناه .. افكارك مترتبه .. عقلك شغال .. أحب اقولك اننا كنا بنأسسك بس ولسه هنبني عليك

اولا : المراجعة:

مهم جدا انك تكون ذاكرت كويس قبل ماتدخل على الاسئله اكبر غلط ممكن توقع فيه انك تذاكر الاسئله بس لان لو حتى هتنجحك مع انى اشك ..
فاكيد ع مستوى عملك مش هتستفيد

1-الملخصات:

على النت وف الجروب هنا فيه ملخصات كلنا عارفينها اسمها ملخصات ابو شادى ملخص فيها الميكرو كالاتى:

1- Gram positive cocci

2- Gram positive bacilli

3- Gram negative cocci

4- Gram negative bacilli

5- Basic principle of microbiology

6- Viruses

7-Parasitology

8- Immunity

ملحوظة:

رقم اثنين فيها غلطة هو مكرر الـ Bacillus anthracis مرتين بس هو الثانيه هي Cereus وليس Anthracis حاول تشوف مصدر للمضادات الحيويه وتلخص بنفسك الفطريات والاكثينوميسيتس

ذاكر الملخصات دى كويس جدا جدا لحد ماتحس انها اتطبعت جوه هتلاقى انواع من البكتريا هو مش ملخصها .. روح انت ع الكتاب واكتبها ف ضهر الورق بنفس الطريقه ...
كدا انت خلصت مراجعة الملخصات

.....

ثانيا : الاسئلة

اختار الاسئلة اللي ف الميكروبيولوجى فقط طبعا هتقدر تفرق لانك مذاكر

اقرا وجاوب بنفسك

ملحوظه كل الاسئلة متجاوبه ياريت تحاول تدارى الاجابه وتختبر نفسك لان بيانك سهل وانت قدامك لكن ممكن تنساه ف الامتحان

الاسئلة كتير ولكن اهمهم اربع ملفات هنزلهمكم ف الملحقات ان شاء الله

-فيه كتب ف الميكروبيولوجى بتبقا عباره عن ان كلها اسئلة اختيارات زى كتاب الاعداد للبورد مثلا دا رائع وهيعمل مراجعه لمعلوماتك بطريقه جميله

.....

خلصنا كل الاسئلة اختارنا المراجع والملفات الصح للمذاكره توكلنا ع الله

نيجى بقا للجزء المهم وهو اهم الاسئلة اللي جاتنى ف الامتحان:

1-يفرز الـ CRP من.. **الكبد**....

2-الفيروس الذى يشبه فيروس الايدز هو **(FIV) فيروس نقص المناعة فى القطط**....

3-المطهر المستخدم لمزارع الدم هو.....

4-هل الـ Pasteurization يعتبر Sterilization؟؟

5-ماهو الذى يحتوى على نقطتين مش عارف ايه كدا ف البلازموديوم

6-ماهو الوسط الغذائى للدفتيريا **التبوليت**

7-ماهى نوع الـ Bacillus الغير متحركه

8-عينة بول منذ ساعتين بالظبط هتقبلها ولا ترفضها

9-ميكانيكية عمل البنسلين

10-ف المضادات الحيويه الـ Synergism and additive

11-العينه التى تفحص بمجرد وصولها المعمل

12-الـ S.pneum. تتبع جروب.....

13-نوع من الـ Tap worm

14-نوع الطفيل ع حسب عدد الـ Gravid segment

15-الملاريا اللي بتعمل enlargement

16-صبغة الـ Feldensen

17-الـ Bacteroides

18-الـ Mucor

19-البروسىلا والـ URease

20-شكل الناييسيريا ع المكانوكي

21-نوع من الانتاميبا لا يوجد ف الامعاء

22-كيف يمكن التحكم ف النورمال فلورا

23-الاورجانيزمات الـ Invasive

24-تعالج الانتيروكوكس بـ.....

25-كيف تفرق بين الـ D-enterococcus والـ enterococcus

26-نوع من الـ Tap worm يوجد ف الانسجه

27-حاله ع ما اعتقد كانت liptospira

28- IL 1&2 ??

29- ف سائل النخاع البكتريا تقلل.....

30- يفرز الافلاتوكسين من.....

31- ميديا لا تستخدم لزراعة الهوائيات.....

32- الاذن الوسطى والنورمال فلورا

33- ملوثات مزرعة الدم ؟

34- Staph aureus

35- بكتيرويدس ميلانو ...

36- عينات لا يتم عليها زراعة لا هوائى

37- البروتوزوا اللى تحتوى ع جزئين متمثلين

38- Genetic variation ف فيروس البوريللا

39- الميكروبات والجروح البطنية

40- التجمع حلو جسم غريب كبويضات البلهارسيا يسمى....

41- طريقة الـ Zn sulphate

42- للفرقة بين البروكاريوتيك والايوكاريوتك

43 – intracellular cocci

44- S.faecalis ... ???

45- shape of micrococcus

46- خواص الهيموفيلس انفلونزا والفرقة بينهم

47- صبغة اليورامين تستخدم لـ

48- وجود صديد ف البول مع عدم نمو بكتريا ؟؟

49- بكتريا الدرن

50- حالة مرضيه لطفل مصاب بفيروس معين

51- حالة مرضيه لمرضى نقص مناعه

52- طرق نقل فيروسات عن طريق الحيوانات

53- ميكانيكية السيفالوسبورين واجياله

54- حالة لميكروب السالمونيلا

55- كيفية امضاء نتيجته ومراجعتها

56- تقسيم عمل التيكنيشن حسب التخصص

57- حاله لعضة الذبابه السوداء

58- حالة ف جامايكا ولكن مش فاكتر المرض كان ايه

59- حاله او اتنين ويديلك خيارات للعلاج

60- حالة كانت تشخيص المرض

61- فترة حضانه وظهور المضادات

لحد هنا دا كل اللى فاكتره او اللى كان سهل وافكرته ... الباقي كان صعب وكان لافف جدا ... الخيارات بتبقا متشابهه جدا ف الاسئله محتاجه تركيز ... لكن الحمد لله ربنا كرمنى وعديت بسكور على كمان ... احمد ربنا واشكره له المنه والفضل .. ومن بعده الجروب الممتاز دا بكل اعضاء كبيرهم وصغيرهم

#امين الهوارى

د. حمدى قطب

بالنسبة لامتحان ممكن تمتحن عادي قبل تمام السنتين مفيش مشكلة

بس تعرف ان صلاحية امتحان البروميترىك سنتين من تاريخه المذاكره من

امتحانات الفنيين

ملخصات الفنيين في الميكروبيولوجي

امتحان الفنى زى الاخصائى عادى يعنى اسئله الفنيين هى برود الى بتيجى للاخصائى بس الفرق فى نسبه النجاح
4-تذاكر اسئلة الباراسيتولوجي بتاعة الفنيين وتحفظها لانها 10 اسئلة مضمونة ان شاء الله

5-والخلاصة علشان ماتدورش كتير وتلاقي كل حاجة في كتاب واحد
مناعة + بكتريولوجي + فيرولوجي + مايكولوجي
تبعت تشتري كتاب الميكرو والمناعه بتاع تانيه طب اسكندريه
هيجيلك الامتحان بالنص من المعلومات اللي في الكتاب ده

Mohamed Hosien

تجربتي مع امتحان البرومتريك:ميكروبيولوجى من الحجز وحتى النتيجة

تجربتي مع امتحان البرومتريك:

السلام عليكم ... انا لما روحت احجز لامتحان البرومتريك حجزت من شركة الاصدقاء فوق فرغلي بتاع العصير شارع
جامعة الدول ولما روحت قالولي انت اللي بتحدد نوع الامتحان بنفسك وبما اني قسم ميكرو ومعايا دبلومة ميكرو بس مش
معايا سنتين خبرة بعد الدبلومة اخترت اسم الامتحان microbiology technician و ذاكرت من كتاب مونيكال الجزء
الخاص بالبكتريا كويس والجزء الخاص بالبارا كويس جدا ومقدمة الفيروس والفطريات والمناعة علي اعتقاد مني بأن البكتريا
والبارا هم اكثر جزئين يتم السؤال عنهم في الامتحان ... المهم روحت في يوم الامتحان للاميديست في شارع محي الدين ابو
العز اللي هو متفرع من شارع الدقي وضروري تروح بدري ساعة مثلا عن الامتحان علشان قبل ما تدخل تمتحن ب يدولك
ورقة تعليمات تقراها عبارة عن انك لما تيجي تدخل الامتحان هتخلع الساعة بتاعتك وتنفض جيوبك من الفلوس والمناديل
والمحفظة واي ورق وتحط الحاجات دي كلها في دولا ب خاص بك ب يدولك مفتاحه بحيث انك مش هتدخل غير بطولك كده
بس والمفتاح ولما تطلع بتاخذ حاجاتك تاني متقلفش مش هيقبلوك ... وما تنساش تاخذ جواز السفر معاك لان هو ده اثبات
الشخصية اللي هيعتمدوا من خلاله دخولك للامتحان ومش بيعترفوا بالبطاقة ... المهم هتدخل الامتحان هتقعد خمس دقائق
الاول قدام الجهاز يدليك شوية معلومات انهم 70 سؤال اختياري وانك لو متأكد من اجابتك هتعمل next علشان تروح للسؤال
اللي بعده ولو مش متأكد من الاجابة وشاكك في اجابة تانية او انك مش عارف الاجابة اصلا هتختار mark و بكده تكون
حددت السؤال ده بحيث انك لما هتتمرع الاسئلة كلها هيطهرلك في الاخر sheet فيه الارقام بتاعة ال70 سؤال بحيث هتشتغل
علي رقم السؤال وتعرف اذا كنت حلتيه مباشرة ولا عملته mark وبالتالي هتضغط عليه تاني علشان تفكر فيه بهدوء كده
وترسالك علي جواب المهم انا بعد الخمس دقائق بدأت تظهر الاسئلة وما شاء الله اول خمس اسئلة عملتلهم mark و كنت
في حالة ذهول انا مذاكر كويس امال فيه ايه بقي ؟؟؟ قلت مش مهم وكملت ولما وصلت للسؤال ال70 لقيت نفسي حلتيه 20
سؤال بس حل نهائي متأكد منه وحددت علي 50 سؤال ... بدأت اركز فيهم وحلتيه وراجعت تاني عالاسئلة كلها وضغطت له
end طبعاً وانا باضغط end قلت اني مش هنجح لان ال50 سؤال اللي كنت عملت لهم تحديد كنت متخوف منهم جدا
وخلال ال10 ثوان بعد ما تضغط end بتبدأ النتيجة تظهر وطبعاً اول خانة حاولت ابص عليها كانت الخانة بتاعة النجاح
والسقوط وكانت المفاجأة بالنسبة لي الحمد لله لقيت مكتوب pass وفعلاً متصوروش السعادة اللي كنت فيها لأنني حسيت ان
مجهودي في مذاكرة ال20 يوم ما ضاعش عالفاضي ... ولما شوفت تقسيمة الاسئلة عرفت ليه انا فيه اسئلة كثيرة ضاعت مني
وكانت التقسيمة كالاتي

18 سؤال عن الميديا والصبغات و

8 اسئلة عن ال UTI و

17 سؤال عن ال respiratory tract و ال CNS infection و

4 اسئلة عن ال blood sepsis,asepsis و

4 اسئلة عن ال GIT و

14 سؤال عن المناعة والفيروسات و

5 اسئلة عن الفطريات والبارا

.....والاسئلة ليست مباشرة ولكنها عاملة زي الفواير يعني مثلا من نوعية انه يقولك بكتريا جرام نيجاتيف ديبلو كوكاي وبتسبب ال cystitis وبعدين مش يقولك ايه هي البكتريا لا ده ببسأل عن ال virulence factor بتاع البكتريا دي وهكذا في معظم الاسئلة .. المهم انا نجحت ب 51 % و درجة النجاح من 45 % و الحمد لله عدت اما عن نصيحتي للناس انها تركز علي مذاكرة البكتريا وتركز فيها علي اسم الميديا اللي بتتمو عليها البكتريا والالوان اللي بتديها مع الميديا دي والاختبارات التفريقية بين البكتريا دي وانواع تانية من البكتريا ممكن تنمو معاها علي نفس الميديا والمرض اللي بتسببه البكتريا ووسائل الامراضية لديها واعراض المرض والصبغات التمييزية لها ... ثاني حاجة تركز عليها هي الفيروسات والمناعة ونفس الكلام برضه اللي قلناه عن البكتريا وبعدين تركز علي المناعة ... و بكده ان شاء الله اضمنك انك هتنجح .. اما بقي لو عايز تذاكر اكثر فهتيجي في البار هتلاقي انه فيه جدول فيه تلخيص للبروتوزا والديدان اللي في البارا يتضمن اسم الطفل والطور المعدي والمرض اللي بيسببه وطرق العدوي والعائل الاساسي والاخر الوسيط ... واقرا مقدمة الفطريات واتكل علي الله وما تقلقش لو لقيت نفسك بتقابلك اسئلة صعبة عليك في البداية بس متخرجش عن تركيزك واوعي تفكر انك هتعرف تسال حد جنبك لان كل واحد بيبقي في حاله غير انك هتلاقي اللي جنبك بيمتحن برومترك صيدلة والثاني هتلاقيه اسنان والثالث طب والرابع اسنان واشعة وتخدير وغيره وكمان المكان فيه كاميرات مراقبة ربنا يعينكم جميعا ويوفقكم

Ahmed Shabaan

بصوا يا جماعة ترتيب اهميه المذاكره بتكون كالتالي . بكتيريولوجي ومناعه وباراسيتولوجي . دول ان شاء الله يضمنوا النجاح . بعدها الفيرولوجي والميكولوجي علشان تبقى في السيف سايد

Ahmed Shabaan

ذاكرو المناعه كويس قوى . و البارا الفروق بين الاوفا واشكالها والسيست والتروفوزويت يتحفظ اشكالها ووصفها كويس . واخيرًا بالتوفيق وانا تحت امركم في اي استفسارات اخرى

اكثر الاسئلة عن البكتيريا طبعًا ركزوا كثير ع حكاية جرام بوزيتيف و لا نيجتيف باسلاي او كوكاي يعني يعطيك بكتريا و يسألك كيف شكلها

الصبغات برضو مهمه تعرفي كل بكتريا ايش فيه صبغه مميزة لها زي مثلا الكورنيبكتير دفتيريا تنصبغ ب ألبرت الاختبارات البيوكيميائية للتفريق بين البكتريا جاني يمكن 3 او اربع اسئلة عنها واحد عن اختبار اليوريز نستخدمه للتفريق بين ايش و ايش ؟ و جاني سؤال ايش الميديا اللي نستخدمها في اختبار الريد ميثيل .. جلوكوز و لا بروتين و لا شو ؟ جاني كمان ايش الاختبار اللي نستخدمه لل انتيروكوكس ؟ و جاني سؤال رابع كمان برضو عن الرد ميثيل بس ناسية ايش كان و الله: كمان سؤال عن ايش لون الكولوني حق الفايبرو كوليرا ع بيئة (tcbs) ؟ ايش المضاد الحيوي للمايكوبلازما !؟

طبعًا في اسئلة تشخيصية زي مثلا يجيك سؤال انو طفل مريض و عنده sore throat و البكتيريا كانت جرام بوزيتيف كوكاي و بيتا هيمولايترك ايش حتكون البكتيريا ؟ اللي هيا ستريبت بايجون في سؤال ناسيه ايش كان بس برضو تشخيصي عن النيسيريا و اعتقد كان السؤال ايش من التيستات نعملو مع ذي البكتيريا و كانت الخيارات فيها انو اكسيديز بوزيتيف برضو في سؤال عن الستاف اوريوس و صفاتها و سؤال عن ايش البكتيريا الي تعمل كلوت للبلازما و طبعًا الاجابه كانت ستاف اوريوس

جاء سؤال مافهمته بس كان يسأل ايش البكتيريا اللي نزرعها ع كوكيد ميت و انو العينة من الستول عند درجة حرارة 80 ناسيه السؤال للاسف

اسئلة البكتريا و صبغاتھا و اختباراتھا التفريقية و تشخيصاتھا كانت اكثر الاسئلة

يجي بعدها الفيروسات صراحة الفيروسات انا ذاكرتها بشكل عام يعني ايش الفيروسات الي تصيب الجهاز التنفسي بشكل عام
ماذاكرت بالتفصيل كل فايروس
و جاتني اسئلة تشخيصيه يعني اعراض الاصابه كذا و كذا ايش الفايروس بالذات فايروسات الجهاز التنفسي ذاكرتها كويس
جاتني رسمة لفايروس الهربس و مادري ايش كان السؤال مافهمته
بعدها اسئلة المناعة جاني كم سؤال ف التكنيك نفسو يعني مثلا عن خطوات الاليزا
سؤال عن سيتوتوكسين تي سيل ايش وظيفتها ؟ سؤالين سهله عن الانتي بدي ايش اللي يروح من الام للبيبي!

اسئلة الباراسايت و الميكولوجي يمكن 5 اسئلة بس و سهله و مباشره جدا
لو تعرف تجيب كتاب الميكرو والمناعه بتاع تانيه طب اسكندريه جميل جدامعرفتش يبقى عليك بالبدائل التاليه

البكتريا

1-Bacteria are

- a) **Prokaryotic** أولية النواة
- b) Eukaryotic حقيقية النواة
- c) Animal
- d) Protozoa
- e) Helminthes

2- One is not a Romano sky stain:

- a) Fields stain
- b) **Gram stain**
- c) Geimsa stain
- d) Leishman stain

3- Romanowsky stain consists of:

- a) **Eosin + Alkaline methylene blue**
- b) Eosin only
- c) Methylene blue only
- d) Indian Ink

الفرق

بين

الموجب لصبغة جرام

السالبة

4- Difference between gram Positive and gram negative bacteria is

- a) Cell membrane
- b) **Cell wall**
- c) Nucleus
- d) Cytoplasm

الصبغة الابتدائية الاولى

5- Primary stain of gram stain:-

- a) **Crystal violet**
- b) Iodine
- c) Safranine
- d) Malachite green

الصبغة الثانوية الثانية

5- Secondary stain of gram stain:-

- a) Crystal violet
- b) Iodine
- c) **Safranine**
- d) Malachite green

كل

التالي

يستخدم

صبغة جرام

ماعداد

6- All the following used in gram stain except:

- a) **Malachite green**
- b) Neutral red
- c) Methyl violet
- d) Iodine
- e) Ethyl alcohol

البكتريا السالبة

لون

7- Gram negative bacteria color appear :

- a) Dark purple
- b) **Pale to dark red**
- c) Orange
- d) Blue

الموجبة

8- Gram Positive bacteria color appear :

- a) Yellow
- b) Pale to dark red
- c) Orange
- d) **Blue or violet**
- e) Black

يوجد بها في البكتيريا الموجبة للجرام

9- In gram positive bacteria there is.

- a) **Peptidoglycan and teicholic acid.**
- b) Has no peptidoglycan.
- c) Has no teicholic acid.
- d) Non of above

تصبغ

ماعد

10-In the lab gram stain use with the following except.

- a) Bacteria smear **فلم بكتيري**
- b) Pus cell smear. **صديدي**
- c) Urethral discharge. **افرازات الحالب**
- d) C.S.F **السائل النخاعي**
- e) **Water culture** **مزرعة الماء**

قاعدي

11-In gram stain, which of these is used as a basic:

- a) **Methyl violet / Crystal violet**
- b) Safranin /Neutral red
- c) Gram iodine
- d) Acetone / alcohol

سلسلة

12- On gram staining one of the following bacteria form chain

- a) **Streptococci**
- b) Staphylococci
- c) Bacillus
- d) Mycobacterium
- e) Diplococci

تترتب

مجموعات

13- Gram +ve cocci arranged in groups (clusters):

- a) Streptococci
- b) **Staphylococci**
- c) Cocci
- d) spiral

يفحص

14-Which of the following microscope would you use to examine a smear of bacteria stained by gram stain:-

- a) Electron microscope
- b) Dark field microscope
- c) Fluorescent microscope
- d) **Bright field microscope**

البكتيريا السالبة

جدار

يتميز

يوجد

15-Gram negative bacterial cell wall characterized by the presence of

- a) Large amount of Glucose.
- b) Large amount of glycogen
- c) Large amount of Cellulose
- d) **Toxic lipopolysaccharide molecules.**

تستخدم في صبغ صبغة زيل نيلسن

16- Ziel nelson stains use in?

- a) Bacillus.sp
- b) **Mycobacterium tuberculosis**
- c) H.influnza.
- d) Non of above

17- Mycobacterium tuberculosis is called acid-fast because:-

- a) It is easily stained by gram stain
- b) **Once stained, it can not be remove by acid**
- c) It is easily decolorizes after staining.
- d) It is stained by an alkaline stain
- e) None of the above
- f) All of the above

معدا في صبغة الزيل نيلسون يستخدم الكل

18- All are use in Zeilh Nelson stain except.

- a) Carbon Fuchcin.
- b) Acid alcohol.
- c) **Crystal violet.**
- d) Malachite green

صبغة البرت

19- Albert's stain use with which of the organism.

- a) E.coli.
- b) H. influenza.
- c) C.tetani.
- d) **Corynebacterium diphtheria.**

20-Stain required to demonstrate bacterial capsules

- a) Gram stain
- b) Giemsa stain
- c) Leishman stain
- d) **India Ink stain**

مناسب

عد

21- Which of the following culture media is suitable for semi quantitative bacterial count in urine samples :- عينة البول

- a) MaCconkey agar
- b) Blood agar
- c) XLD medium
- d) Mannitol salt agar
- e) **CLED medium**

مزرعة البول

22- CLED agar use in urine culture because it?

- a) It is transport media. **ميديا ناقلة**
- b) It is basic media. **ميديا أساسية**
- c) **Help in colonies count and prevent swarming of proteus .** تساعد في عد المستعمرات وتمنع نمو البروتيس .
- d) All above.

لعزل

23-Thayer-martin media is the choice for the isolation of the following organism:

- a) Pseudomonas aeruginosa
- b) Haemophilus influenzae
- c) **Nisseria gonorrhoea**

24-Media use for tuberculosis:

- a) **Lewis Jensen media**
- b) Nutrient agar
- c) Urease broth
- d) Sabarous

25- Bordet gengou medium is best for isolation of :

- a) **Bordetella retusis**
- b) Moraxella catarrhalis
- c) Haemophilus influenzae
- d) S.pyogenes

أو عدم وجود وجود تنمو

26- Bacteria that can grow in present or absent of O₂ is called?

- a) **Facultative anaerobic.** غير هوائية اختيارية
- b) Strict anaerobic غير هوائية إجبارية
- c) Anaerobic. غير هوائية
- d) None of above. ليس مما سبق

درجة الحرارة المثلى

لنمو

البكتريا

27- Optimum temperature for growth of bacteria is?

- a) 50C.
- b) 60C.
- c) **37C.**
- d) None of above.

المسبب

حمى

28- Cause of Q fever is?

- a) **Coxiella burnet.**
- b) Borrella.
- c) Treponema.
- d) Anopheles

الحمى الروماتيزمية

29- Indicative for rheumatic fever is?

- a) CRP.
- b) RF.
- c) **ASO.**
- d) None of above.

الغرغرينا

30- Gas gangrene cause by.

- a) **Clostridium. perfringers.**
- b) Clo. Tetani.
- c) Clo. Botulism.
- d) None of above.

السعال الديكي

31- Whooping cough cause by.

- a) Yersinia spp.
- b) Strepto. Pneumonia.
- c) **Bordetella pertuss.**
- d) Staph. aureus.

عدوى في قناة مجرى البول

32- In UTI the following is present:

- a) Glucose.
- b) Acetone.
- c) **Leukocyte. كرات الدم البيضاء (WBCs)**
- d) Non of above

طفل

شخص ب

حمى قرمزية

33- A child diagnosis show scarlet fever the cause is:

- a) **Streptococcus Pyogenes**
- b) Staphylococci aureus
- c) Bacillus anthracis
- d) Pseudomonas aeruginosa

بكتريا

تترتب

حروف صينية

34- Bacteria arranged in Chinese litters:

- a) **Corynebacteria Diphtheria**
- b) Bacillus anthracis
- c) Bacillu anthrax
- d) E.coli

تعريف

العنقودية

السبحية

35- Which test identifying staph from strepto it is.

- a) **Catalase.**
- b) Coagulase.
- c) Oxidase.
- d) Urease

اختبار

لتعريف

36-Test for Identifying Strepto pneumonia is?

- a) Catalase.
- b) Oxidase.
- c) **Optichine.**
- d) None of the above.

الاختبار التاكيدى

النيومونيا

37- Confirmatory test of streptococcus pneumonia:

- a) Catalase
- b) Optochine disc
- c) Coagulase
- d) **Bile solubility**
- e) Bacitracin

المزرعة تحفظ في بعد الزراعة

38- Culture media kept in the following after plating.

- a) Hot oven. الفرن
- b) **Incubator.** الحضان
- c) None of above.
- d) All above.

الخلية البكتيرية تحتوى ماعدا

39-Bacterial cell contain all the following except:

- a) Ribosome
- b) Plasmid
- c) **Mitochondria**
- d) Cell membrane
- e) Pilli

اكتشاف التحلل

40- Media for detection of hemolysis is.

- a) **Blood agar.**
- b) Neutral agar.
- c) MaCconky.
- d) All above.

تنتج البورياز

41- Most common bacteria that produce urease are.

- a) **Proteus.**
- b) Pseudomonas.
- c) E.coli.
- d) None of above.

42- One is always oxidase +ve

- a) Haemophilus Influenza
- b) **Pseudomonas aurogenase and Neisseria**
- c) E.coli
- d) Yersinia

تعريف

43- Test help in Identification of Pseudomonas and Neisseria

- a) Citrate test
- b) Coagulase
- c) Indole test
- d) DNase
- e) **Oxidase**

مادة تستخدم في تفاعل الكاتلاز

44- Substance used in catalase reaction:

- a) **H₂O₂**
- b) CO₂
- c) H₂O
- d) HCO₃

براز يشبه ماء الأرز مخاط

45- Rice watery stool with mucous fakes occur in infectious with

- a) Corynebacteria Diphtheria
- b) Bacillus anthracis
- c) Bacillu anthrax
- d) E.coli
- e) **Vibro cholera**

قوة وضرارة

46- The Invasiveness of streptococcus pneumonia is due to the production of:-

- a) Haemolins
- b) Endotoxins
- c) Extotoxins
- d) **Polysaccharide Capsule**

الطور

تنمو

و تتضاعف

يسمى

47- Stage in which bacteria grow and multiply called

- a) Lag phase
- b) **Log phase**
- c) Stationary phase
- d) Decline phase

تتكيف وتتلاءم

الوسط الغذائي

48- Stage in which bacteria make adaptation in media called

- a) **Lag phase**
- b) Log phase
- c) Stationary phase
- d) Decline phase

الكلاميديا

49-Chlamydia cause

- a) Trachoma
- b) Neonatal ophthalmic
- c) **A&B**
- d) Diarrhea

مرض القطط

يشخص ب

50- Toxoplasmosis is diagnosed by.

- a) **Serological test.**
- b) Blood film examination.
- c) X-ray.
- d) Skin scraping.

الإنسان

ليس

العائل النهائي

51- Human is not definitive host

- a) Entamoeba histolytica
- b) **Toxoplasma Gondii**
- c) Trypanosoma cruzi
- d) E.coli
- e) Giardia lamblia

العائل النهائي

حيوان

52- The definitive host is an animal:

- a) Entamoeba histolytica
- b) **Toxoplasma Gondii**
- c) Taenia saginata
- d) E.coli
- e) Giardia lamblia

طفيل

عدوى مخية مميتة

53- Parasite can cause fetal cerebral infection:

- a) Taenia
- b) Toxoplasma gondii**
- c) Trypanosoma
- d) Schistosoma

بروتوزوا غير متحركة

54- Non motile protozoa:

- a) Toxoplasma gondii or Plasmodium malaria**
- b) Trypanosoma cruzi
- c) Giardia lamblia
- d) Trichomonas vaginalis

طفيل داخلي

55- One of these organism multiply intracellular parasite:

- a) Gardia lamblia
- b) Entameba histolytica
- c) E. coli
- d) Trypanosoma Cruzi
- e) Toxoplasma gondii**

56-The intermediate host of toxoplasmosis is :-

- a) Dog
- b) Cat
- c) Mouse
- d) Human**
- e) None

يكتسب

57-Man may acquire toxoplasmosis from:-

- a) Mice
- b) Cats**
- c) Dogs
- d) Pigs

الليشمانيا ب

تصبغ

58- Leishmania Stained by:

- a) Fields stain
- b) Geimsa stain
- c) A or B**
- d) Leishman stain
- e) Gram stain

الليشمانيا

تنتقل بواسطة

59- Cutaneous leishmaniasis transmitted by:

- a) Phlebotomus sand fly** دودة الرمل
- b) Female anopheles mosquito
- c) Male anopheline mosquito
- d) Tse tse fly

60- Oriental sore disease caused by

- a) Trypanosome sp.
- b) Plasmodium malaria
- c) Leishmania donovani
- d) **Leishmania tropica***

61-Kala azar and black fever (Visceral leishmaniasis) caused by

- a) Trypanosome sp.
- b) Plasmodium malaria
- c) **Leishmania donovani**
- d) Leishmania tropica

الطور المعدي

62-Infective stage in leishmania :-

- a) Cyst
- b) Trophozoit
- c) **Larva**
- d) Worm

عدوى الليشمانيا

تنتقل بواسطة

63- Leshmania infection transmitted by:

- a) Male anopheles mosquito
- b) Female anopheles mosquito
- c) **Sand fly**
- d) Tsetse fly

اكتشاف

طفيل الملاريا

64- Detection of malaria parasite is by:

- a) **Thick blood film**
- b) Leishman stain
- c) Gram stain
- d) Geimsa stain

عدوى الملاريا

تنتقل بواسطة

65- Malaria infection transmitted by:

- e) Male anopheles mosquito
- f) **Female anopheles mosquito**
- g) Sand fly
- h) Tsetse fly

66-Use Test VDRL For

- a) **Syphilis (T.pallidium)**
- b) Streptococci
- c) Mycobacterium
- d) E.coli

الزهري

67- Syphilis causes

- a) **T. palidium**
- b) Gonorrhea
- c) Staph.auru
- d) Bacillus anthrax

الزهري

68- Which of the following is use to determine syphilis.

- a) VDRL.
- b) ASO.
- c) RF.
- d) CRP.

الكابسولة

69-Capsule is

- a) Polysaccharide عديد السكريات
- b) Lipid دهن
- c) Protein بروتين
- d) Cholesterol كوليستيرول

لايعقم

الفرن الحار

70-Which of the following stuff can not be sterilized in hot oven

- a) Glass or aluminum Petri dishes
- b) Glass tubes
- c) Glass flask and cylinders
- d) Metal needles and glass pipettes
- e) Culture media

التعقيم

فى الفرن الجاف

عند

71- The sterilization in hot air oven performed at:

- a) 121 c° for 15-30 min.
- b) 160 c° for 45-60 min.
- c) 121 c° for 10 min.
- d) 160 c° for 10 min.

التعقيم

عند

72- The sterilization in autoclave performed at:

- a) 121 c° for 15-30 min.
- b) 160 c° for 45-60 min.
- c) 121 c° for 10 min.
- d) 160 c° for 10 min.

تسبب مرض الإنسان

73- Bacteria can cause pathogenesis to human by:

- a) Capsule
- b) Secret enzymes
- c) Endogenous toxins
- d) Exogenous toxins
- e) All of the above

وظيفة

الزائدة

74- Function of pili of the bacteria:

- a) Attachment to the host tissue الالتصاق بالعائل
- b) Movement الحركة
- c) Reproduction (multiplication) التكاثر
- d) Engulf of food ابتلاع الطعام
- e) All of the above كل ماسبق

تشخيص العينة من حول فتحة الشرج

75- Perianal specimen diagnose

- a) Trichomonas vaginalis
- b) Taenia saginata
- c) **Enterobius vermicularis**
- d) Entamoeba histolytica

الطور المعدي

الدودة الدبوسية

76- Infective stage of Enterobius vermicularis is:

- a) Larva
- b) Cercaria
- c) **Egg**
- d) Cyst
- e) Metacercaria

العدوى الذاتية

77- Autoinfection of human can caused in case of:

- a) **Enterobius vermicularis**
- b) Taenia Sp.
- c) Ancyllostoma Dudenal
- d) Ascaris Lumbricoides

الفلاريا

78- Blood of Microfilaria infection diagnosis with:

- a) **Wuchereria bancrofti**
- b) Cercaria
- c) Rhabditiform larva
- d) Oocyst

79- Specimen suitable for microfilaria

- a) Tissue
- b) Blood
- c) Fluid
- d) Urine
- e) **ALL**

المسبب

الطفيل

للبلهارسيا عند المصريين

80- The causative parasite of Egyptian bilharziasis

- a) Trichomonas vaginalis
- b) Schistosoma haematobium
- c) Schistosoma japonicum
- d) **Schistosoma mansoni**

بلهارسيا المجاري البولية

81- Schistosoma haematobium diagnosis:

- a) **Egg in urine with terminal spine**
- b) Egg in Stool
- c) Larva
- d) Cyst

بمسبب ظهور الدم في بول المصريين

بمسبب

82- Egyptian haematuria is caused by:-

- a) Schistosoma japonicum
- b) **Schistosoma haematobium**
- c) Schistosoma mansoni

دودة

83- The worm that causes blood in urine?

- a) Ascaris
- b) Fasciola
- a) **Schistosoma haematobium**
- d) Taenia saginata

الطور التشخيصي

الاسكارس

84- Diagnostic stage of Ascaris lumbricoidis:

- a) **Finding of a typical fertilized egg in stool**
- b) Finding cyst in stool
- c) Finding larva in Stool
- d) Finding segment in Stool

الطور المعدي

الاسكارس

85-Infective stage of Ascaris lumbricoidis:

- a) **Ova**
- b) Cyst
- c) Larva
- d) Segment

طفيل

يوجد

الافرازات المهبلية

86- Parasite can be detected in vaginal and urethral discharge:

- a) Entamoeba histolytica
- b) **Trichomonas Vaginalis**
- c) Leishmania
- d) Schistosoma spp.

87-Protozoa in sexual reproduction

- a) **Trichomonas vaginalis**
- b) Taenia saginata
- c) Echinococcus granulosus
- d) Entamoeba histolytica

يشخص بوجود

88- Strongyloides stercoralis diagnostic by finding

- a) Egg in stool
- b) Cyst in stool
- c) **larva in stool**
- d) Egg in Urine

صبغة الايودين

89- Iodine stains of Entamoeba cyst staining:

- a) Chromatoidal bars
- b) Cell wall
- c) Nuclei
- d) Cytoplasm
- e) **ALL**



90- A specific test for staphylococcus aureus is

- a) Catalase test
- b) Coagulase test
- c) Optochin sensitivity test
- d) Bacitracin sensitivity test
- e) CAMP test

ميكروسكوب ذو حقل مظلم

91- Bacteria that need dark field microscope to detected

- a) T.pallidum
- b) Klebsiella
- c) Streptococcus pyogenes
- d) Colistridia sp

92-Autoclave sterilize in temp:

- a) 121°C-20min
- b) 125-35min
- c) 115-25min
- d) 160c-45-60 min

هوائية إجبارية

93-Strict aerobe bacteria

- a) Mycobacterium
- b) Klebsiella
- c) Streptococcus pyogenes
- d) Colistridia sp.

94-Citrate test detect:

- a) Mycobacterium
- b) Klebsiella
- c) Streptococcus pyogenes
- d) Colistridium sp

95-Capsulated bacteria

- a) Mycobacterium
- b) Klebsiella
- c) Streptococcus pyogenes
- d) Colistridium sp

96- Growth of vibrio cholerae on TCBS medium produces colonies

- a) Yellow colonies
- b) Blue colonies
- c) Green colonies
- d) White colonies
- e) Red colonies

دم باليراز

97- Organism cause bloody stool:

- a) Shigella sp.
- b) E.coli
- c) Salmonella
- d) Cambylobacter

تخمير اللاكتوز

98-Media use for differentiate between L.F and N.L.F:

- a) MacConkey agar
- b) Chocolate
- c) Blood agar
- d) XLD
- e) TCBS

99- Bacteriological media can be sterilized in:-

- a) Oven
- b) Filtration
- c) Autoclave
- d) Bunsen burner

100- All of the following are true about agar except:-

- a) agar is inert(Non nutritive)
- b) Nutritious
- c) Solidity at 42c
- d) Melts at 100c

101- The IMVIC Reaction of E. coli is

- a) + + - -
- b) - - + +
- c) + + + -
- d) - - + -

102- On DCA and MacConkey agar the salmonella/shigella give small colonies, which colour of the following, appear

- a) Black
- b) pink
- c) Brown
- d) Pale yellow
- e) Yellow-brown

103-In manual white blood cell count using haemocytometer the dilution used is:

- a) Normal saline
- b) Sodium chloride
- c) Glacial acetic acid
- d) Water

104-Which of the following are sterilized in the oven:-

- a) Media
- b) Sand
- c) Water
- d) Blood
- e) All of the above

105- A parasite which does not deposit eggs in the intestine:

- a) **Entrobilus.vermicularis**
- b) Anchylostoma. Duodenale
- c) Ascaris lumbricoides
- d) T.saginata

106- Specimens from a polio victim for culture can be best made on

- a) Blood
- b) Urine
- c) **Feces**
- d) CSF
- e) Throat / Nasal washing

107- Beta hemolytic is enhanced when group B streptococci are streaked at an angle in blood agar plate with:-

- a) Streptococci
- b) Staph aureus
- c) micrococcus
- d) Streptococcus epidermidis
- e) Corynebacterim diptheriae

108- To obtain an isotonic media, sodium chloride content should be:-

- a) **0.58 g %**
- b) 0.085 g%
- c) 8.5 g%
- d) 6.5 g%
- e) 0.50 g%

109- Group B beta-hemolytic streptococci are differentiated by other streptococcus groups by using:-

- a) Optochine
- b) CAMP
- c) Niacin test
- d) Catalase test.
- e) **Bacitracin sensitivity disc**

110- Most of pathogenic strains of streptococcus belongs to group :-

- a) Viridans
- b) Beta-hemolytic
- c) Alpha-hemolytic (pneumonia)
- d) Group d
- e) Micrococcaciae

111- The trophozoite , which contains red blood cells in the cytoplasm , brings to this parasite:-

- a) Entamoeba histolytica
- b) Entamoeba gingivalis
- c) Entamoeba coli
- d) Iodamoeba butschlii
- e) None of the above

112- On EMB, the colour of the colonies of shigella – salmonella is:-

- a) Black
- b) Green
- c) Pink
- d) Yellow
- e) Colorless

113- Micro-organisms that grow at 60 c are classified as:-

- a) Psychophysics
- b) Mesophilic
- c) Hemophilic
- d) Thermophilic
- e) Saprophilic

114- A diagnostic finding for giardia lamblia in stool:-

- a) Cyst in stool
- b) Cyst and trophozoite in stool
- c) Characteristic ova
- d) Trophozoite in stool
- e) All of the above

115- The concentration of agar in the culture medium is:-

- a) 10 – 11 %
- b) 20 %
- c) 50 %
- d) 60 %
- e) 1-2 %

116- Best for identification of parasite if you can not see it in stool (negative in stool)

- a) Concentration technique
- b) Flotation technique
- c) Wet mount technique
- d) Kato technique

117- Streptococcus pneumoniae are :

- a) Beta hemolytic
- b) alpha hemolytic
- c) No hemolytic

ممرضة

118- Some organisms are said to be pathogenic if they are containing the following features:-

- a) Coagulase
- b) Catalase
- c) Sugar
- d) Antibodies

119- Organism soluble the bile:-

- a) Staph.aureus
- b) Streptococci
- c) Pneumococci (streptococcus pneumonia)
- d) Haemophilous influenzae

120- Organism that exhibits satellitism along with staph aureus:-

- a) Haemophilus influenzae
- b) Shigella sp.
- c) Clostridium sp.
- d) S.pneumoniae

121- To differentiate between nisseria gonorrhoea & nisseria meningitides

- a) dextrose + lactose
- b) dextrose + maltose
- c) Glucose + Maltose
- d) dextrose + Fructose

122- which of the following organisms is an anaerobic bacterium:-

- a) Clostridium spp.
- b) Haemophilus
- c) E.coli
- d) Yersinia enterocolitica

123- What practical Cardioliipin is applicable in laboratory work?

- a) FTA
- b) VDRL&RPR
- c) RPR only
- d) VDRL only

124- Vi Ag is seen in:-

- a) Capsule
- b) Pili
- c) Spore
- d) Flagella

125- Purine associated with

- a) Adenine
- b) Guanine
- c) Uric acid
- d) RNA

126- To Clean the lenses of microscope we used

- a) Water
- b) Ethyl alcohol
- c) Xylene
- d) Chloroform
- e) HCL

127- The determination of ASO titer is used in the laboratory diagnosis of:-

- a) Toxic shock syndrome
- b) Scarlet fever
- c) Streptococcal pharyngitis and cellulitis
- d) Rheumatic fever

128-Which of the following Enlarges RBCs

- a) Plasmodium vivax
- b) Plasmodium malariae
- c) Plasmodium falciparum
- d) All of the above

129-Which of the following neither lays eggs nor deposits larvae in the intestinal canal:-

- a) Hookworms
- b) Pinworm (Enterobius vermicularis)
- c) Trichinella spiralis
- d) Trichuris trichura

130-Identified by finding mainly the Rhabditiform larvae in in fresh stool:-

- a) Ascaris lumbricoides
- b) Enterobius vermicularis
- c) Strongyloides stercoralis
- d) Trichinella spiralis

131-The resolution of the bright field microscope is:-

- a) 2.0 μm
- b) 0.2 μm
- c) 0.02 μm
- d) 0.002 μm

132-When using a 10 x eye piece and a 10 x objective of a bright field microscope, the total magnification will be:-

- a) 10
- b) 100
- c) 1000
- d) 10000

133-For blood culture the best anticoagulant is

- a) Citrate
- b) Oxalate
- c) Sodium polyanesthol sulphonate(SPS)
- d) Heparin
- e) EDTA

134-Hydated disease caused by

- a) Trichomonas vaginalis
- b) Tainia saginata
- c) Echiococcus granulosus

135-- Ancylostoma duodenalis diagnostic stage is

- a) Embryonated egg
- b) Cyst
- c) Filariform larva
- d) Trophozoit

136- Ancylostoma duodenalis Infective stage stage is

- a) Embryonated egg
- b) Cyst
- c) Filariform larva
- d) Trophozoit

137- Preservation of Urine Sample used

- a) Acetic acid
- b) Boric acid
- c) Phenol
- d) Formalin

138- The antibiotic disc which differentiate between group A streptococci and other groups is?

- a) Neomycin
- b) Tetracycline
- c) Bacitracin
- d) CAMP
- e) Optichine

الدودة القزمية

139- The dwarf worm is?

- a) Schistosoma sp.
- b) Tenia saginata
- c) **H.nana**
- d) Tainia saginata

140- When focusing a stained smear under oil immersion field the magnification is?

- a) 10
- b) 40
- c) **100**
- d) 15

141- A standard micro plates in ELISA test has?

- a) 98 wells
- b) 94 wells
- c) **96 wells**
- d) 48 wells

142- The enzyme in ELISA testing is present in the?

- a) Buffer
- b) Micro plate
- c) **Conjugate**

143- The label in ELISA tests is?

- a) Radio active substance
- b) Antibody
- c) **Enzyme**
- d) Buffer
- e)

أفضل تعقيم

للووسط الغذائي (الميديا)

144- Best sterilization of Nutrient media done by:

- a) Hot air oven
- b) **Autoclaving**
- c) Filtration
- d) Radiation

الانتيجين H

145- H Ag present in:

- a) Pilli
- b) Capsule
- c) Flagella
- d) Cell membrane

كل التالي يستخدم صبغة جرام ماعدا

1- All the following used in gram stain except :

- a) Carbol fuchsin
- b) Neutral red
- c) Methyl violet
- d) Iodine
- e) Ethyl alcohol

البكتريا

2- Bacteria are

- a) Prokaryotic أولية النواة
- b) Eukaryotic حقيقية النواة
- c) Animal
- d) Protozoa
- e) Helminthis

اي من الأوساط الآتية

مناسب لـ

العد البكتيري النوعي

3- Which of the following culture media is suitable for semi quantitative bacterial count in urine samples لعينة البول

- a) Mc Conkey agar
- b) Blood agar
- c) XLD medium
- d) Mannitol salt agar
- e) CLED medium

مزرعة البول

4- CLED agar use in urine culture because it?

- a) it is transport media. ميديا ناقلة
- b) it is basic media. ميديا أساسية
- c) Help in colonies count and prevent swarming of proteus . تساعد في عد المستعمرات وتمنع نمو البروتيس .
- d) All above.

يساعد

تعريف

الانقودية

السيحية

5- Which test help in identifying staph from strepto it is.

- a) Catalyase.
- b) Coagulase.
- c) Oxidase.
- d) Urease

صبغة زيل نيلسن

تستخدم في صبغ

6- Ziel nelson stain use in?

- a) Bacillus.sp
- b) Mycobacterium.
- c) H.influnza.
- d) Non of above

تنمو

وجود

أو عدم وجود

7- Bacteria that can grow in present or absent of O₂ is called?

- a) Facultative anaerobic غير هوائية اختيارية
- b) Strict anaerobic غير هوائية إجبارية
- c) Anaerobic غير هوائية
- d) Non of above. ليس مما سبق

البكتريا لنمو درجة الحرارة المثلى

8- Optimum temperature for growth of bacteria is?

- a) 50C.
- b) 60C.
- c) 37C.
- d) Non of above.

المسبب حمى

9- Cause of Q fever is?

- a) Coxiella burnet.
- b) Borrella.
- c) Treponema.
- d) Anopheles

كرات الدم الحمراء الملاريا

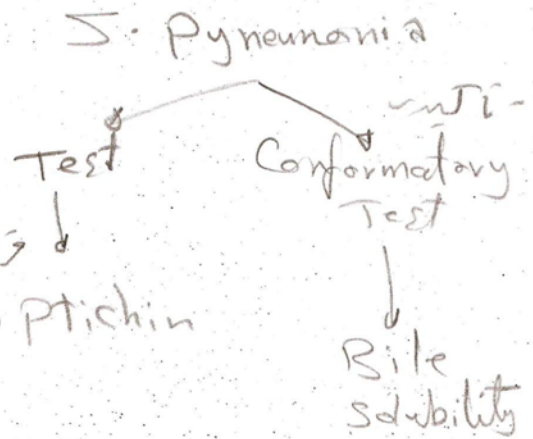
10- In malaria RBC are?

- a) lysis. تتحلل
- b) Not lysis. لا تتحلل
- c) Non of above.
- d) All above.

اختبار تعريف

11- Test for Identifying Strepto pneumonia is?

- a) Catalase.
- b) Oxidase.
- c) Optichine.
- d) Non of the above.



الحمى الروماتيزمية

12- Indicative for rheumatic fever is?

- a) CRP.
- b) RF.
- c) ASO. Anti-streptolysin - O - titre.
- d) Non of above.

المزرعة تحفظ في بعد الزراعة

13- Culture media kept in the following after plating.

- a) Hot oven. الفرن
- b) Incubator. الحضان
- c) Non of above.
- d) All above.

الزهري

14- Which of the following is use to determine syphilis.

- a) VDRL.
- b) ASO.
- c) RF.
- d) CRP.

اكتشاف

15- Media for detection of hemolysis is.

- a) Blood agar.
- b) Neutral agar.
- c) MaCconky.
- d) All above.

البورياز تنتج

16- Most common bacteria that produces urease is.

- a) proteus.
- b) pseudomonas.
- c) E.coli.
- d) non of above.

صبغة البرت

17- Albert's stain use with which of the organism.

- a) E.coli.
- b) H. influenza.
- c) C.tetani.
- d) Corynebacterium diphtheria.

موت الجنين تسبب الأجسام المضادة (Ab)

18- Immunoglobins cause HDN is.

- a) IgM.
- b) IgG.
- c) IgA.
- d) IgD.
- e) IgE.

IgG : ① less m.w
② more Number 75%
③ Cross placenta

Immunoglobulin AB.

الحمى القرمزية

19-Bacteria that cause scarlet fever is.

- a) Strepto G.B.
- b) Strepto G.D.
- c) Strepto G.A.
- d) Non of above.

الغرغرينا

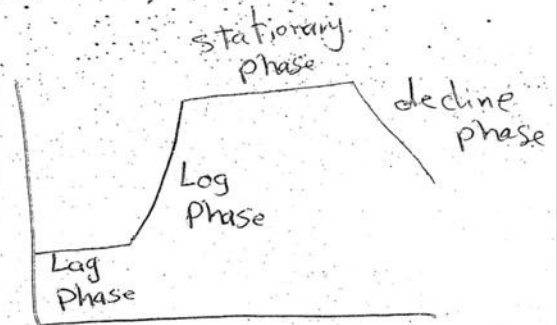
20- Gas gangrene cause by.

- a) Clostridium. perfringers.
- b) Clo. Tetani.
- c) Clo. Botulism.
- d) Non of above.

الأكثر شيوعا وانتشارا

21- Which is most abundant (prevalence).

- a) Plasmodium falciparum.
- b) P. ovali.
- c) P. malari.
- d) P. vivax.



الطور

تنمو

و تتضاعف

يسمى

22- Stage in which bacteria grow and multiply called

- a) Lag phase
- b) Log phase
- c) Stationary phase
- d) Decline phase

تتكيف وتتلاءم

الوسط الغذائي

23- Stage in which bacteria make adaptation in media called

- a) Lag phase
- b) Log phase
- c) Stationary phase
- d) Decline phase

يوجد بها في البكتريا الموجبة للجرام

24- In gram positive bacteria there is.

- a) Peptidoglycan and teichoic acid.
- b) Has no peptidoglycan.
- c) Has no teichoic acid.
- d) Non of above.

يرى في الطور المتحرك والمغذي

25- Trophozoite can seen in.

- a) Teina spp.
- b) Trichomonas vaginal.
- c) Nom of above.
- d) All above

السعال الديكي

26- Whooping cough cause by.

- a) Yersinia spp.
- b) Strepto. Pneumonia.
- c) Bordetella pertuss.
- d) Staph. aureus.

عدوى في قناة مجرى البول

27- In UTI the following is present:

- a) Glucose.
- b) Acetone.
- c) Leukocyte. كرات الدم البيضاء (WBCs) = pus
- d) Non of above

في المختبر

معدا

28- In the lab gram stain use with the following except.

- a) Bacteria smear. قلم بكتيري
- b) Pus cell smear. صديدي
- c) Urethral discharge. افرازات الحالب
- d) C.S.F. السائل النخاعي
- e) Water culture. مزرعة الماء

يعقم

بالفلتر

29- Which of the following sterile by filter.

- a) Media. الوسط الغذائي
- b) Serum. السيرم
- c) Sand. الرمل
- d) Water. الماء

مرض القطط

يشخص ب

30- Toxoplasmosis is diagnoses by.

- a) Serological test.
- b) Blood film examination.
- c) X-ray.
- d) Skin scraping.

الكانين

يعزل

البراز

31- The organism that can be isolated from stool is.

- a) T.pallidum.
- b) Klebsiella.
- ☒ c) Salmonella.
- d) Neisseria.

الكلاميديا

32-Chlamydia cause

- a) Trachoma
- b) Neonatal ophthalmia
- ☒ c) A&B
- d) Diarrhea

الانسان

ليس

العائل النهائي

33- Human is not definitive host

- a) Entamoeba histolytica
- ☒ b) Toxoplasma Gondii
- c) Trypanosoma cruzi
- d) E.coli
- e) Giardia lamblia.

الليشمانيا ب

تصبغ

34- Leishmania Stained by :

- a) Fields stain
- b) Geimsa stain
- ☒ c) A or B
- d) Leishman stain
- e) Gram stain

قاعدي

35-In gram stain , which of these is used as a basic:

- ☒ a) Methyl violet / Crystal violet
- b) Safranin / Neutral red
- c) Gram iodine
- d) Acetone / alcohol

36-Use Test VDRL For

- ☒ a) Syphilis (T.pallidum)
- b) Streptococci
- c) Mycobacterium
- d) Staph aureus.

أفضل ميديا

للتحلل

37-The best media for hemolysis culture is?

- ☒ a) Blood agar
- b) XLD
- c) CLED
- d) Mackonky agar
- e) Chocolate agar

أزرق الميثيلين

مفيد

لصبغ

38-Methylene blue technique useful for Staining

- a) Leucocytes in faecal الصدید فی البراز
- b) Staining Capsules of Bacillus anthracis صبغ الكبسولة
- c) A & B
- d) Spores الجراثيم
- e) Flagella الاسواط

الخلية البكتيرية

تحتوى

ماعددا

39-Bacterial cell contain all the following except:

- a) Ribosome
- b) Plasmid
- c) Mitochondria
- d) Cell membrane
- e) Pilli

الكابسولة

40-Capsule are

- a) Polysaccharide عديد السكريات
- b) Lipid دهن
- c) Protein بروتين
- d) Cholesterol كوليستيرول

لايعقم

الفرن الحار

41-Which of the following stuff can not be sterilized in hot oven

- a) Glass or aluminum Petri dishes
- b) Glass tubes
- c) Glass flask and cylinders
- d) Metal needles and glass pipettes
- e) Culture media

التعقيم

فى الفرن الجاف

عند

42- The sterilization in hot air oven performed at :

- a) 121 c° for 15-30 min.
- b) 160 c° for 45-60 min.
- c) 121 c° for 10 min.
- d) 160 c° for 10 min.

سلسلة

43- On gram staining one of the following bacteria form chain

- a) Streptococci
- b) Staphylococci
- c) Bacillus
- d) Mycobacteri
- e) Diplococci

العضو المسؤول

نضج

44-The Organ responsible for maturation of T-lymphocyte

- a) Liver الكبد
- b) Kidney الكلية
- c) Thymus الثايمس
- d) Bone marrow النخاع
- e) Spleen الطحال

45- The Organ responsible for maturation of B-lymphocyte

- a) Liver
- b) Kidney
- c) Thymus
- ☒ d) Bone marrow
- e) Spleen

العائل النهائي

حيوان

46- The definitive host is an animal: = 33

- a) Entamoeba histolytica
- ☒ b) Toxoplasma Gondii
- c) Taenia saginata
- d) E.coli
- e) Giardia lamblia

أصغر

وزن جزيئي

47- The smallest molecular weight Ig is:

- ☒ a) IgG
- b) IgM
- c) IgD
- d) IgE
- e) IgA

تسبب مرض للإنسان

48- Bacteria can cause pathogenesis to human by:

- a) Capsule
- b) Secret enzymes
- c) Endogenous toxins
- d) Exogenous toxins
- ☒ e) All of the above

زيادة النيتروفيل

49- Neutrophil count is high in:

- ☒ a) Acute bacterial infection - الإصابة البكتيرية الحادة
- b) Iron deficiency anemia - أنيميا نقص الحديد
- c) Megaloblastic anemia - أنيميا الميجالو
- d) Viral infection - الإصابة الفيروسية

وظيفة

الزائدة

50- Function of pili of the bacteria:

- ☒ a) Attachment to the host tissue - الالتصاق بالعائل
- b) Movement - الحركة
- c) Reproduction (multiplication) - التكاثر
- d) Engulf of food - ابتلاع الطعام
- e) All of the above - كل ما سبق

اكتشاف

طفيل الملاريا

51- Detection of malaria parasite is by:

- ☒ a) Thick blood film
- b) Leishman stain
- c) Gram stain
- d) Geimsa stain

عصوى سالب الجرام غير متحرك دانما

52- One is always non motile gram negative rods:

- a) Haemophilus Influenza
- ☒ b) Shigella
- c) E.coli
- d) Salmonella
- e) Borditella Pertusis

متحرك

53- One is motile gram -ve rods

- a) Haemophilus Influenza
- b) Bacillus anthracis
- ☒ c) Pseudomonas aerogenes
- d) Vibrio cholerae
- e) Yersinia Pestis

بيضى (دائرى)

54- One is gram +ve oval (cocci):

- a) Bacillus anthracis
- b) Meningococci
- ☒ c) Pneumococci
- d) Streptococcus pyogenes

طفل

شخص ب

حمى قرمزية

55- A child diagnosis show scarlet fever the cause is:

- ☒ a) Streptococcus Pyogenes
- b) Staphylococci aureus
- c) Bacillus anthracis
- d) Pseudomonas aeruginosa

56- Xylose lysine Deoxycholate (XLD) is:

- ☒ a) Selective media اختيارية
- b) Simple media بسيطة
- c) Differential media تفريقية
- d) Enriched media
- e) Enrichment

الطور المعدى

الدودة الدبوسية

57- Infective stage of Entrobis vermicularis is:

- a) Larva
- b) Cercaria
- ☒ c) Egg
- d) Cyst
- e) Metacercaria

الدودة الشريطية

58- Infective stage of Taenia:

- a) Larva
- b) Cercaria
- c) Embryonated egg
- ☒ d) Cysticercus
- e) Metacercaria

العدوى الذاتية

59- Autoinfection of human can caused in case of:

- a) Entrobilus vermicularis
- b) Taenia Sp.
- c) Anclystoma Dudenal
- d) Ascaris Lumbricoidis

المناعة المكتسبة و الذاتية في تدخل كرات الدم البيضاء

60- The leukocyte that involve in Adaptive and Acquired immunity:

- a) Lymphocyte
- b) Neutrophil
- c) Monocyte
- d) Basophile
- e) Eosinophil

61- One is not a Romanowsky stain:

- a) Fields stain
- b) Gram stain
- c) Geimsa stain
- d) Leishman stain

تتكون من

62- Romanowsky stain consists of:

- a) Eosin + Alkaline methylene blue
- b) Eosin only
- c) Methylene blue only
- d) Indian Ink

صبغة الايودين

63- Iodine stain of Entamoeba cyst staining :

- a) Chromatoidal bars
- b) Cell wall
- c) Nuclei
- d) Cytoplasm
- e) Cell membrain

الطور التشخيصي

الاسكارس

64- Diagnostic stage of Ascaris lumbricoidis:

- a) Finding of a typical fertilized egg in stool
- b) Finding cyst in stool
- c) Finding larva in Stool
- d) Finding segment in Stool

أفضل تعقيم

للووسط الغذائي (الميديا)

65- Best sterilization of Nutrient media done by:

- a) Hot air oven
- b) Autoclaving
- c) Filtration
- d) Radiation

الجسم المضاد

أختبار الحمل

66- Immunoglobulin pregnancy test related to:

- a) IgG
- b) IgM
- c) Human chorionic Gonadotropin
- d) IgE

المناعة الخلوية

67- Leukocyte responsible for cellular immunity:

- a) T-lymphocyte
- b) B- lymphocyte
- c) Monocyte
- d) Basophile
- e) Eosinophil

طفيل

يوجد

الافرازات المهبلية

68- Parasite can be detected in vaginal and urethral discharge:

- a) Entamobia histolytica
- b) Trichomonas Vaginalis
- c) Leshmania
- d) Schistosoma spp.

بكتريا

تترتب

حروف صينية

69- Bacteria arranged in Chinese litters:

- a) Corynebacteria Diphtheria
- b) Bacillus anthracis
- c) Bacillu anthrax
- d) E.coli

عدوى الملاريا

تنتقل بواسطة

70- Malaria infection transmitted by:

- a) Male anopheles mosquito
- b) Female anopheles mosquito
- c) Sand fly
- d) Tsetse fly

الاختبار التاكيدي

النيومونيا

71- Confirmatory test of streptococcus pneumonia:

- a) Catalase
- b) Optochine disc
- c) Coagulase
- d) Bile insolubility
- e) Bacitracin

يشخص بوجود

72- Strongyloids stercoralis diagnostic by finding

- a) Egg in stool
- b) Cyst in stool
- c) larva in stool
- d) Egg in Urine

طفيل

عدوى مخية مميتة

73- Parasite can cause fetal cerebral infection:

- a) Taenia
- b) Toxoplasma gondii
- c) Trypanosoma
- d) Schistosoma

تقرب

مجموعات

74- Gram +ve cocci arranged in groups (clusters)

- a) Streptococci
- b) Staphylococci
- c) cocci
- d) spiral

بروتوزوا غير متحركة

75- Non motile protozoa:

- a) Toxoplasma gondii or Plasmodium malaria
- b) Trypanosoma cruzi
- c) Giardia lamblia
- d) Trichomonas vaginalis

دائما

76- One is always oxidase +ve

- a) Haemophilus Influenza
- b) Pseudomonas aeruginosa
- c) E.coli
- d) Yersinia

مسئول عن

الطفيلية

و

بالحساسية

الإصابة

77- Leukocyte response for parasitic and allergic infection:

- a) Lymphocyte
- b) Neutrophile
- c) Monocyte
- d) Basophile
- e) Eosinophil

من مكونات الميديا

78- The following is ingredient of culture medium:

- a) Meat extract
- b) Mineral salts
- c) Agar
- d) Peptone
- e) Non of the above
- f) All of the above

الانتجين H يوجد على

79- H Ag present in :

- a) Pilli
- b) Capsule
- c) Flagella
- d) Cell membrane



80- Which of White blood cell give immunoglobulin :

- a) Lymphocyte
- b) Neutrophil
- c) Basophile
- d) Monocyte
- e) Eosinophil

الفلاريا

81- Blood of Microfilaria infection diagnosis with :

- a) Wucheria bancrofti
- b) Cercaria
- c) Rhabditoform larva
- d) Oocyst

كمية قليلة جدا

82- One of the immunoglobulin present in trace amount in serum :

- a) IgG
- b) IgE
- c) IgM
- d) IgD
- e) IgA

لون

83- Gram negative bacteria color appear :

- a) Dark purple
- b) Pale to dark red
- c) Orange
- d) Blue
- e) Black

ميديا اختيارية

84- Selective medium of entero pathogen is:

- a) Chocolate agar
- b) Blood agar
- c) DCA medium
- d) Meat extract agar
- e) XLD medium

أولية الفؤاة

85- One of these is prokaryotic cell :

- a) Fungi
- b) Bacteria
- c) Entameba histolytica
- d) Helminthis
- e) Non of the above

معاقد

طفيل داخلي

86- One of these organism multiply intracellular parasite:

- a) Gardia lamblia
- b) Entameba histolytica
- c) E. coli
- d) Tryponosoma Cruzei
- e) Toxoplasma gondii

تعريف 2
87- Test help in Identification of Pseudomonas and Neisseia

- a) Citrate test
- b) Coagulase
- c) Indole test
- d) DNase
- e) Oxidase*

مغذية
88- Media to become nutritive must contain the

- a) Source of carbon
- b) Source of nitrogen
- c) Water
- d) Minerals
- e) All of the above

الفرق بين الموجب لصبغة جرام السالب
89- Difference between gram Positive and gram negative bacteria is

- a) Cell membrane
- b) Cell wall
- c) Nucleus
- d) Cytoplasm

كل الخلايا لها نواة ما عدا
90- All cells are nucleated except:-

- a) lymph
- b) monocytes
- c) Erythrocyte P.B.C
- d) Neutrophil
- e) Monocyte

مادة تستخدم في تفاعل الكتلينز
91- Substance used in catalyse reaction :

- a) H₂O₂
- b) CO₂
- c) H₂O

براز يشبه ماء الأرز مخاط
92- Rice watery stool with mucous fakes occur in infectious with

- a) Corynebacteria Diphtheria
- b) Bacillus anthracis
- c) Bacillu anthrax
- d) E.coli
- e) Vibro cholera

قوة وضراوة
93- The Invasiveness of streptococcus pneumonia is due to the production of:-

- a) Haemolsins
- b) Endotoxins
- c) Extotoxins
- d) Polysaccharide Capsule

94- Bordet gengou medium is best for isolation of :

- a) Bordetella retusis
- b) Moraxella catarrhalis
- c) Haemophilus influenzae
- d) S.pyogenes

لعزل

95- **Thayer-martin media** is the choice for the isolation of the following organism:

- a) *Pseudomonas aeruginosa*
- b) *Haemophilus influenzae*
- c) *Nisseria gonorrhoea*

ظهور الدم في بول المصريين

بمسبب

96- **Egyptian haematuria** is caused by:-

- a) *Schistosoma japonicum*
- b) *Schistosoma haematobium*
- c) *Schistosoma mansoni*

بروتوزوا غير متحركة

97- **Non motile protozoa:**

- a) *E.histolytica*
- b) *Plasmodium malaria*
- c) *Toxoplasma gondii*
- d) *Giaradia lamblia*
- a) *Typanosoma cruzi*

الليشمانيا الجلدية

تنتقل بواسطة

98- **Cutaneous leishmaniasis** transmitted by:

- a) *Phlebotomus* sand fly دودة الرمل
- b) Female anopheles mosquito
- c) Male anopheline mosquito
- d) Tse tse fly

تنتقل الملاريا بواسطة

99- **Malaria** transmitted by :

- a) Female anopheline mosquito
- b) Male anopheline mosquito
- c) *Phlebotomus* sand fly
- d) Tse tse fly

بليهارسيا المجارى البولية

100- **Shistosoma hematobium** diagnosis:

- a) Egg in urine with terminal spine
- b) Egg in Stool
- c) Larva
- d) Cyst

العينة من حول فتحة الشرج

تشخيص

101- **Perianal specimen diagnose**

- a) *Trichomonas vaginalis*
- b) *Tainia saginata*
- c) *Entrobis vermicularis*
- d) *Enta.histolytica*

المسبب

الطفيل

للبليهارسيا عند المصريين

102- **The causative parasite of Egyptian bilharisiasis**

- a) *Trichomonas vaginalis*
- b) *Schistosoma haematobium*
- c) *Schistosoma japonicum*
- d) *Schistosoma mansoni*

اختيار متبرعي الدم

ماعد

103-blood donor selection in KSA are all of the following except?

- a) Hb% 12.5-16
- b) Free from syphilis
- c) One year after delivery

التعقيم الاقل تأثيرا

104-low effective sterilization with:

- a) Ethyl alcohol 70%
- b) Methyl alcohol
- c) chloroform 25%
- d) 5%phenol
- e) 5% cresol

لا يعقم

الفرن الجاف

105-One of the following not sterile in hot air oven:

- a) Dry glassware الزجاجيات الجافة
- b) Oil الزيت
- c) Powder بودر
- d) Waxes شموع
- e) Rubber gloves

اولا اقدم اعتذاري لا بورشاد لاني نشرت المذكرات وذاك لاسباب :

١ -اولا يابو رشاد احنا مسلمين واخوان في الله قبل ما اعرفك ولكن انا لاحظت انك بديت في الاستغلال مع العلم انو الاسئله اتغيرت وانت تتدعي للجميع انك عارف الاسئله ليه كذا هل حب المال طغى على مبادئك يابو رشاد انت انسان دين وتعرف الله ماضيت انك تكون بذا الاسلوب ابدا .

٢ ثانيا والله العظيم مانشرت المذكرات الا بعد ماسالت اكثر من شيخ ومنهم الشيخ محمد النجيمي والكل يعرفه وافتوني ان هذا استغلال يابو رشاد ولا يجوز لك تسوي بالطلاب كذا اذا كنت تتعب الطلبة لهم سنين وهم يتعبون واكثرهم حالته الماديه ماتساعده فين مبداء الانسانيه عندك .

٣ -اذا يابو رشاد بتقول مو من حقي انشر المذكرات ثق اني سالت قبل ماسوي ذا الاجراء وغير كذا تدري ان التدريس او المجموعات اللي تسويها غير نظاميه منها انك استغليت مهنتك واستغليت الكليه اللي انت تدرس فيها .

٤ يابو رشاد ديننا الاسلامي حثنا على التعلم وحث كل مسلم ان ينفع غيره بالعلم الذي تعلمه .

٥ -اتمنى يابو رشاد اني اسمع اخبار زينه عنك قبل ما تاخذ الاجراء الثاني وانا مابي اقطع رزقك ولكن خف على الطلبة شوي وخذ منهم مبلغ رمزي مو ١٥٠٠ ولزم يكونو مجموعات يعني لو كان لكل طالب ٥٠٠ ولا معقوله اما ١٥٠٠ حرام والله لا تفكر بنفسك وجني المال ولا تنسي انك تقول اني مميز بشرحي واذا الله كاتب لك رزق بتاخذه .

٦ -اخواني الطلاب اسال الله ان ينفعكم بهالمذكرات اللي كلن يتكلم عنها ولكن والله العظيم الاختبار اول قبل ماتتغير الاسئله يجي منها اما اللان صدقوووووووووني والله مافي شي مباشر ادرسو واتعبو الدعوه يبي لها فهم وتركيز مو خبط لزق زي ما اسمع عن الكثير يقول لي يومين اذاكر يعني من المعقول ان حصاد ثلاث سنوات ونص يجي بيومين مذاكره فكرو بالمنطق .

٧ تفائلو بالخير تجدوه احوكم الجرح العميق .

Deep_wound_2010@hotmail.com

تشخيص العينة من حول فتحة الشرج
101- Perianal specimen diagnose

- a) Trichomonas vaginalis
- b) Tainia saginata
- c) Entrobilus vermicularis
- d) Enta.histolytica

المسبب الطفيل للبلهارسيا عند المصريين
102- The causative parasite of Egyptian bilharisiasis

- a) Trichomonas vaginalis
- b) Schitosoma haematobium
- c) Schitosoma japonicum
- d) d-Schitosoma mansoni

103-lense near the slid in light microscope :

- a) Objective الشبينية
- b) Eye lenses العينية
- c) Stage
- d) Arms

104- A specific test for staphylococcus aureus is

- a) Catalase test
- b) Coagulase test
- c) Optochin sensitivity test
- d) Bacitracin sensitivity test
- e) CAMP test

ترتفع
105- Lymphocyte is elevated in:

- a) Viral infection
- b) Acute bacterial infection
- c) Iron deficiency anemia
- d) Megaloblastic anemia

أكبر وزن جزيئي
106- The Largest molecular weight Ig is:

- a) IgG
- b) IgM
- c) IgD
- d) IgE
- e) IgA

مستعمرات
107- Gram Negative bacteria colonies color:

- a) Dark purple
- b) Pale to dark red
- c) Orange
- d) Blue color

ميكروسكوب ذو حقل مظلم
108- Bacteria that need dark field microscope to detected

- a) T.pallidium
- b) Klebsiella
- c) Streptococcus pyogenes
- d) Colistridia sp

بعدم الذر
autoclave sterilize in

- a) 121°C-20min
- b) 125-35min
- c) 115-25min
- d) 160°C-45-60 min

بكتريا هوائية إجبارية
110-Strict aerobic bacteria

- a) Mycobacterium
- b) Klebsiella
- c) Streptococcus pyogenes
- d) Colistridia sp.

اختبار السترات
111-Citrate test detect:

- a) Mycobacterium
- b) Klebsiella
- c) Streptococcus pyogenes
- d) Colistridium sp

بكتريا الصاكا بسول
112-Capsulated bacteria

- a) Mycobacterium
- b) Klebsiella
- c) Streptococcus pyogenes
- d) Colistridium sp

مرض
113- Disease caused by streptococcus pyogenes:

- a) Scarlet fever. الحمى القرمزية
- b) Whooping cough
- c) Sleeping sickness
- d) Chagas disease

الكوليرا القوي
114- Growth of vibrio cholerae on TCBS medium produces colonies مستعمرات

- a) Yellow colonies
- b) Blue colonies
- c) Green colonies
- d) White colonies
- e) Red colonies

دم بالبراز
115- Organism cause bloody stool:

- a) Shigella sp.
- b) E.coli
- c) Salmonella
- d) Cambylobacter

116- Nutrient agar:

- a) Basic media ميديا أساسيه
- b) Selective media إختياريه
- c) Enriched media مغنيه
- d) Differential media تفريقيه

117-Media use for differentiate between L.F and N.L.F:

- a) MacConkey agar
- b) Chocolate
- c) Blood agar
- d) XLD
- e) TCBS

لدى تخمر اللاكتوز / تخمر اللاكتوز

Lactose ferment

Non ferment

118-Media use for tuberculosis:

- a) Lewis Jensen media
- b) Nutrient agar
- c) Urease broth
- d) Sabarous

119-Eosinophil is high in :

- a) Parasitic infection and allergic reaction:
- b) Viral infection
- c) Bacterial infection
- d) Fungal infection

يوجد في الطفيليات والحساسية

120- The best anti coagulant in blood culture is: = 191 = 130

- a) Sodium oxalate
- b) Sodium Citrate
- c) Sodium Sulfate
- d) All the above

مضاد للتجلط

121- Motile bacteria have

- a) H- Antigen
- b) O- Antigen
- c) O-H Antigen
- d) Non

البكتيريا المتحركة

122- Which of the following culture media is suitable for semi quantitative bacterial count in urine samples :-

- a) MacConkey agar
- b) Blood agar
- c) XLD medium
- d) Mannitol salt agar
- e) CLED medium

مناسب

123- Bacteriological media can be sterilized in:-

- a) Oven
- b) Filtration
- c) Autoclave
- d) Bunsen burner

124- All of the following are true about agar except:-

- a) Agar is inert (Non nutritive) ^{غير غذائية}
- b) Nutritious
- c) Solidity at 42 c
- d) Melts at 100 c

الصبغة الأولية

125- Primary stain of gram stain:-

First stain in Gram stain

- a) Crystal violet
- b) Iodine
- c) Safranin
- d) Malachite green

126- Not Found In Prokaryotic :

- a) Bacteria
- b) Sprozoa
- c) Chlamydia
- d) Spirochetes
- e) Rickettsia

127- The IMVIC Reaction of E. coli is

- a) ++--
- b) --++
- c) +++-
- d) -+--

128- On DCA and MaCconkey agar the salmonella/shigella give small colonies, which colour of the following, appear

- a) Black
- b) pink
- c) Brown
- d) Pale yellow
- e) Yellow-brown

129- Leukocyte ^{قليلة العدد} least abundant in the blood:

- a) Nutrophile
- b) Eiosinophile
- c) Basophile
- a) Monocyte

130- In manual white blood cell count using haemocytometer the dilution used is: شريحة الدم

- a) Normal saline
- b) Sodium chloride
- ☒ c) Glacial acetic acid
- d) Water

131- Which of the following is sterilized in the oven:- الفرن يعقم

- a) Media
- ☒ b) Sand
- c) Water
- d) Blood
- e) All of the above

132- Infective stage in leishmain :- الطور المعدي

- a) Cyst
- b) Trophozoite
- ☒ c) Larva "Promastigote"
- d) Worm

133- All are lactose fermenters except :- تخمر اللاكتوز

- a) E.coli
- b) Enterobacter cloacae } L.F
- ☒ c) Proteus sp. } N.L.F
- ☒ d) Shigella

134- A parasite which does not deposit eggs in the intestine : الأمعاء البيض لا يوضع

- ☒ a) Enterobius vermicularis
- b) Anchylostoma Duodenale
- c) Ascaris lumbricoides
- d) T.saginata

135- Specimens from a polio victim for culture can be best made on شكل الأطفال

- a) Blood
- b) Urine
- ☒ c) Feces = stool
- d) CSF
- e) Throat / Nasal washing

136- The best anticoagulant for blood culture specimen is:- مضاد للتخثر أفضل

- a) heparin
- b) EDTA
- c) oxalate
- ☒ d) SPS
- e) ACD

البول القاعدي ملح
137- Salt seen in alkaline urine

- a) Calcium oxalate
- ☒ b) Triple phosphate
- c) Amorphous urate
- d) Uric acid
- e) Cystins

تحفر
138- Beta hemolytic is enhanced when group B streptococci is streaked at an angle in blood agar plate with:-

- a) Streptococci
- ☒ b) Staph aureus
- c) micrococcus
- d) Streptococcus epidermidis
- e) Corynebacterium diptheriae

ينتج الرائحة
139- All statements are true about proteus mirabilis and proteus vulgaris except:-

- a) don't ferment lactose
- ☒ b) Urease Negative
- c) Give fishy odour on blood agar
- d) Exhibits swarming on EMP and macConky agar
- e) PDA and H2S positive

ميريامفادله الحصول على
140- To obtain an isotonic media, sodium chloride content should be:-

- ☒ a) 0.58 g %
- b) 0.085 g %
- c) 8.5 g %
- d) 6.5 g %
- e) 0.50 g %

صحيح
141- All is true about salmonella organism except:-

- a) The main reservoir is human
- b) Contains O and H antigen
- c) Urease, KCN and phenylalanine (negative)
- d) H2S positive with gas
- ☒ e) Indole +

مقاومه للاذخاف بكتريا الدرن
142- Mycobacterium tuberculosis is called acid-fast because:-

- a) It is easily stained by gram stain
- ☒ b) Once stained, it can not be remove by acid
- c) It is easily decolorizes after staining.
- d) It is stained by an alkaline stain
- e) None of the above
- f) All of the above.

143- Group B beta-hemolytic streptococci are differentiated by other streptococcus groups by using:-

- a) Optochine
- ☒ b) CAMP
- c) Niacin test
- d) Catalase test.
- e) Bacitracin sensitivity disc

144- Most of pathogenic strains of streptococcus belongs to group :-

- a) Viridans
- b) Beta-hemolytic
- ☒ c) Alpha-hemolytic (Pneumonia)
- d) Group D
- e) Micrococcaciae

145- Bacterial sterilization of serum can be accomplished by the filtration using a porosity of:-

- ☒ a) 0.22 u
- b) 0.80 u
- c) 0.60 u
- d) 5.0 u

146- The trophozoite, which contains red blood cells in the cytoplasm, brings to this parasite:-

- ☒ a) Entamoeba histolytica
- b) Entamoeba gingivalis
- c) Entamoeba coli
- d) Iodamoeba butschlii
- e) None of the above

147- In manual Red blood cell count using haemocytometer the dilution used is:

- ☒ a) Normal saline
- b) Sodium chloride
- c) Glacial acetic acid
- d) Water

148- On EMB, the colour of the colonies of Shigella - Salmonella is

- a) Black أسود
- b) Green أخضر
- ☒ c) Pink وردي
- d) Yellow أصفر
- e) Colorless عديم اللون

149- Micro-organisms that تنمو grow at 60°C are classified as:-

- a) Psychrophiles
- b) Mesophilic
- c) Hemophilic
- d) Thermophilic
- e) Saprophilic

150- A براز diagnostic finding for giardia lamblia in stool:-

- a) Cyst in stool
- b) Cyst and trophozoite in stool
- c) Characteristic ova
- d) Trophozoite in stool
- e) All of the above

151- Crystals like ببول envelope in urine is

- a) Calcium oxalate
- b) Triple phosphate
- c) Amorphous urate
- d) Uric acid

152- Which of the following indicates a ببول blood agar plate?

- a) Corynebacterium diphtheriae
- b) Mycobacterium tuberculosis
- c) Bordetella pertussis
- d) Francisella tularensis
- e) None of the above

153- All are member of the family enterobacteriaceae except :-

- a) Klebsiella pneumonia
- b) Yersinia pestis
- c) Pseudomonas aeruginosa
- d) Shigella dysenteriae
- e) Campylobacter jejuni

154- The concentration تركيز of agar in the culture medium is:-

- a) 10 - 11 %
- b) 20 %
- c) 50 %
- d) 60 %
- e) 1-2 %

155- Best for البراز identification of parasite if you can لا تراه في البراز not see it in stool (negative in stool)

- a) Concentration technique طريقه التركيز
- b) Flotation technique
- c) Wet mount technique
- d) Kato technique

156- Streptococcus pneumoniae are :

- a) Beta hemolytic β -hemolytic
- ☒ b) alpha hemolytic α -
- c) No hemolytic

157- Identification of leishmania parasite

- a) lymph node aspirate.
- b) Stool
- ☒ c) Blood "monocyte"
- d) Urine
- e) A & C

158- Neutrophils

- ☒ a) Most abundant in WBCs
- b) Less abundant WBCs
- c) Types of RBCs
- d) Increase in viral infection

159- Some organisms are to said to be pathogenic if they are containing the following features:-

- ☒ a) Coagulase
- b) Catalase
- c) Sugar
- d) Antibodies

160- Most common pathogenic streptococci

- a) Group A
- b) Beta-hemolytic
- ☒ c) Alpha-hemolytic (lanculated)
- d) Group B

161- Organism soluble the bile:-

- a) Staph.aureus.
- b) Streptococci
- ☒ c) Pneumococci (streptococcus pneumonia)
- d) Haemophilus influenzae

162- Organism that exhibits satellitism along with staph aureus:-

- ☒ a) Haemophilus influenzae
- b) Shigella sp.
- c) Clostridium sp.
- d) S.pneumoniae

163- To differentiate between nisseria gonorrhoea & nisseria meningitides

- a) dextrose + lactose
- b) dextrose + maltose
- ☒ c) Glucose + Maltose
- d) dextrose + Fructose

للفارديا المناسبة العينه

164- specimen suitable for microfilariae

- a) Tissue
- b) Blood
- c) Fluid
- d) Urine
- e) ALL of the above

بكتريا غير هوائية

165- which of the following organisms is an anaerobic bacterium:-

- a) Clostridium spp.
- b) Haemophilus
- c) E.coli
- d) Yersinia enterocolitica

لعدوى الطفيليه

166- Ig (immunoglobulin) increased in case of parasitic infection & allergy

- a) IgG
- b) IgA
- c) IgM
- d) IgE

بذخاير الحساسية

167- Nutrient agar is:-

- a) Selective media
- b) Differential media
- c) Special media
- d) Enriched media
- e) Basic media

اختيارية
تفريقيه
خاصه
مغذيه
اساسيه

بذخاير المعيار القياسي

168- Purpose of standard deviation:-

- a) To measure external quality control
- b) To measure internal quality control
- c) precise & accuracy
- d) both a & b

لها ماسول الكائنات المتناوبه

169- The following organisms are Capsulated except:-

- a) Pseudomonas aeruginosa
- b) Haemophilus influenzae
- c) E.coli
- d) Streptococcus pneumoniae

ليست خرم

المحدد

170- what practical Cardiolipin is applicable in laboratory work?

- a) FTA
- b) VDRL & RPR
- c) RPR only
- d) VDRL only

172- ^Kvi Ag is seen in:-

- a) Capsule ^{K-V}
- b) Pili ⁰
- c) Spore
- d) Flagella ^H

جهاز الفصل الكهربائي، أعلى جسم مضاد

173- Highest Ig in electrophoresis :-

- a) IgM (heavier) 1st
- b) IgA
- c) IgE
- d) IgG

174- Substance present in any agar plate that promotes the bacterial growth:-

- a) Water (H₂O)
- b) Nitrogen
- c) Minerals
- d) CO₂

175- Purine associated with

- a) Adenine
- b) Guanine
- c) Uric acid
- d) RNA

176- Ig Not part of acquired immunity:-

- a) IgM
- b) IgA
- c) IgE
- d) IgG

177- To Clean the lenses of microscope we used

- a) Water
- b) Ethyl alcohol
- c) Xylene
- d) Chloroform
- e) HCL

178- The intermediate host of toxoplasmosis is :-

- a) Dog
- b) Cat
- c) mouse
- d) Human
- e) None

179- Viruses resemble living things in that they :-

- a) Are motile
- b) Are crystalline
- c) Grow
- d) Reproduce

تقریر
180- The determination of ASO titer is used in the laboratory diagnosis of :-

- a) Toxic shock syndrome
- b) Scarlet fever
- c) Streptococcal pharyngitis and cellulitis
- d) Rheumatic fever

فیرس شلل اطفال
181- The best specimen for recovery of poliomyelitis virus for cultures:-

- a) CSF
- b) Blood c-Throat swab
- c) buffy coat
- d) Stool
- e) None of the above
- f) all of the above

دفعہ
182- Which of the following Enlarges RBCs

- a) Plasmodium vivax
- b) Plasmodium malariae
- c) Plasmodium falciparum
- d) All of the above

رضی لہو
183- Man may acquire toxoplasmosis from:-

- a) Mice
- b) Cats
- c) Dogs
- d) Pigs

لا یرفع لہو
184- Which of the following neither lays eggs nor deposits larvae in the intestinal canal:-

- a) Hookworms
- b) Pinworm (Enterobius vermicularis)
- c) Trichinella spiralis
- d) Trichuris trichura

البرقہ
185- Identified by finding mainly the Rhabditiform larvae in in fresh stool:-

- a) Ascaris lumbricoides
- b) Enterobius vermicularis
- c) Strongyloides stercoralis "S.S"
- d) Trichinella spiralis

المیکروسکوپ ایلوئی
186- The resolution of the bright field microscope is:-

- a) 2.0 um
- b) 0.2 um
- c) 0.02um
- d) 0.002um

187- Serum can be sterilized using membrane filter of porosity :-

- a) 0.22 μm
- b) 2.3 μm
- c) 0.6 μm
- d) 0.8 μm

188-When using a 10 x eye piece and a 10 x objective of a bright field microscope, the total magnification will be:-

- a) 10
- b) 100
- c) 1000
- d) 10000

189-Which of the following microscope would you use to examine a smear of bacteria stained by gram stain:-

- a) Electron microscope
- b) Dark field microscope
- c) Dissecting microscope
- d) Fluorescent microscope
- e) Bright field microscope

= Light microscope

190-Which of the following would you use to examine a smear stained with a fluorochrome:

- a) Bright field microscope
- b) Dark field microscope
- c) Polarizing microscope
- d) Fluorescent microscope

191-For blood culture the best anticoagulant is:

- a) Citrate
- b) Oxalate
- c) Sodium polyanesthol sulphate (SPS)
- d) Heparin
- e) EDTA

192-Hydated disease caused by

- a) Trichomonas vaginalis
- b) Tainia saginata
- c) Echioccus granulosus

193-Protozoa in sexual reproduction

- a) Trichomonas vaginalis
- b) Tainia saginata
- c) Echioccus granulosus
- d) Enta.histolytica

بطور تشخيصي

194- Ancylostoma duodenalis diagnostic stage is

- a) Embryonated egg
- b) Cyst
- c) Filariform larva
- d) Trophozoit

بطور معدي

195- Ancylostoma duodenalis Infective stage is

- a) Embryonated egg
- b) Cyst
- c) Filariform larva
- d) Trophozoit

كبيرة

196- Large in Roman Stain

- a) Lymphocyte
- b) Eosinophils
- c) Monocyte
- d) Basophils

مسبب الزهري

197- Syphilis causes

- a) T. palidum
- b) Gonorrhea
- c) Staph. auru
- d) Bacillus anthrax

198- Not Eukaryotic

- a) Bacteria
- b) Protozoa.
- c) Fungi
- d) Helminthis
- e) All

199- Bloody stool

- a) Klebsilia
- b) E.coli
- c) Shigella
- d) Campylobacter

المشيم

200- Immunoglobulin cross placenta

- a) IgG
- b) IgM
- c) IgE
- d) IgD

البكتريا المتحركة

201- Motile bacteria have

- a) Pseudopodia
- b) Flagella
- c) Cilia
- d) ALL

202-Examination of vaginal or urethral discharged for

- a) Trichomonas vaginalis
- b) Tainia saginata
- c) Echiococcus granulosus
- d) Enta.histolytica

203-Gram negative bacterial cell wall characterized by the presence of

- a) Large amount of Glucose.
- b) Large amount of glycogen
- c) Large amount of Cellulose
- d) Toxic lippolysaccharide molecules.

204-VDRL or RPR test are related to : = 170

- a) Polysaccharide
- b) Lipoprotein
- c) Cardiolipin
- d) Carbohydrate
- e) ALL.

205-Reagent used in catalase test

- a) H₂O
- b) H₂O₂
- c) CO₂
- d) N₂

206- Oriental sore disease caused by

- a) Trypanosome sp.
- b) Plasmodium malaria
- c) Leishmania donovani
- d) Leishmania tropica

207- Kala azar and black fever (Visceral leishmaniasis) caused by

- a) Trypanosome sp.
- b) Plasmodium malaria
- c) Leishmania donovani
- d) Leishmania tropica

208-Catabolic product of Purine

- a) Cytocin + Thymine
- b) Cytocin+Uracil
- c) Adenine + Guanine*
- d) Non

209-Catabolic product of pyrimidine

- a) Cytocin + Thymine → DNA
- b) Cytocine +Uracile → RNA
- c) A or B
- d) Adenine + Guanine

اختیار الیضیال
210- Widal test specific for

- a) Shigella Antibodies
- b) Streptococci Antibodies
- c) Staphylococci Antibodies
- d) Klebsiella Antibodies
- e) Salmonella Antibodies

مرضین پیتل من حیوانات

211- Zoonotic disease by

- a) Brucella-sp.
- b) Streptococci
- c) Staphylococci
- d) Klebsiella
- e) Salmonella (typhi & paratyphi)

اختیار لیور یا من حیوان لیزیز

212- Urease breath test detect

- a) Shigella
- b) Streptococci
- c) Helicobacter pylori
- d) Klebsiella
- e) Salmonella (typhi & paratyphi)

صبغه

تجدید

الکابسولہ

213- Stain required to demonstrate bacterial capsules

- a) Gram stain
- b) Giemsa stain
- c) Leishman stain
- d) India Ink stain
- e) ALL

214- Bacillus anthracis Capsule (McFadyyans reaction) stained by

- a) Gram stain
- b) Giemsa stain
- c) Leishman stain
- d) India Ink stain
- e) Methylene blue technique*

تقریبق

215- Important test in the identification of enterobacteria specially (E.coli)

- a) Citrate test
- b) Coagulase
- c) Indole test*
- d) DNase
- e) Oxidase

حفظ

عینہ لیور

216- Preservation of Urine Sample used

- a) Acetic acid
- b) Boric acid
- c) Phenol
- d) Formalin

217- Anti Streptolysin O antibodies (ASO) ^{نتج} produced against infection with

- a) S. pyogenes
- b) S. pneumonia
- c) Clostridium tetani
- d) Bacillus anthracis

218- The best sample ^{عنه} for the culture of children paralysis virus ^{فيروس شلل الأطفال} is?

- a) Anal swab
- b) Blood culture
- c) Stool culture
- d) Urine culture

219- Dry air oven ^{يفرم} is used to sterilize?

- a) Water
- b) Culture media
- c) Sand
- d) Wax
- e) Gloves

220- To differentiate ^{للتفرقه} between the two streptococci group ^{بين} which enzyme is used?

- a) Coagulase
- b) Kinase
- c) Catalase
- d) Citrate

221- The antibiotic disc ^{بين} which differentiate ^{يفرق} between group A streptococci ^{قرص المضاد الحيوي} and other groups is?

- a) Neomycin
- b) Tetracycline
- c) Bacitracin
- d) CAMP
- e) Optichine

222- All of the following is true ^{صحيح} for salmonella ^{ماثرا} except?

- a) Motile
- b) Produces H₂S
- c) Oxidase positive
- d) Urease negative

* D - Urease negative

223- The nutritive substance ^{المادة المغذية} in culture media is?

- a) Sugar
- b) Starch
- c) Agar
- d) Water
- e) Wax

منزعة لبول
ميدبا افضل
224- The best media for urine culture is?

- a) Blood agar
- b) Chocolate agar
- c) CLED agar
- d) Nutrient agar

225- Shigella soni colored in Macon key & ~~EMB~~ ^{DCA}?

- a) Colorless
- b) Red
- c) Pink
- d) Yellow

العدسة الزيتية
226- The oil emersion lens is

- a) 10
- b) 40
- c) 100
- d) 1000

* الدودة القزمية
227- The dwarf worm is?

- a) Schistosoma sp.
- b) Tenia saginata
- c) H. nana
- d) Tainia saginata

الطور الشيخوي
228- The diagnostic stage of amoeba is?

- a) Cyst
- b) Trophozoite
- c) Egg
- d) All of them

لبول دم
الدودة
229- The worm that causes blood in urine?

- a) Ascaris
- b) Fasciola
- c) Schistosoma haematobium
- d) Tainia saginata

العدا المعتر
التصالي
230- The significant count of bacteria to be inflammation is?

- a) Less than 10^5
- b) More than 10^3
- c) Less than 10^3
- d) More than 10^5

عند مهبوغه بالجرام
لفحص
231- To investigate gram stained samples we use the following microscope?

- a) Double phase microscope
- b) Florescent microscope
- c) Light microscope
- d) Electron microscope

232- All the following parameters affecting gram staining except? صبغة الجرام تؤثر

- a) Use H_2SO_4
- b) Add absolute alcohol after washing
- c) Delaying the dryness of the slide

233- Solidifying agent in culture media is? المادة المتصلبة المزرعة

- a) wax
- b) starch
- c) agar
- d) Wood

234- Agar which used as a solidifying agent in culture media concentration is? تركيزها

- a) 5-9%
- b) 4-9%
- c) 1-2%

235- Bone matrix can also called? تسمى مادة العظام

- a) Vascular tissue
- b) Fibrous tissue
- c) Osteo
- d) Hepatic cell

236- Directional movement of WBCs directly to its target is? لصيف حركته مباشرة

- a) Sliding
- b) Phagocytes
- c) Chemo taxis
- d) Thermo taxis
- e) Photo taxis

237- When focusing a stained smear under oil immersion field the magnification is? العدسة الزيتية تركيز

- a) 10
- b) 40
- c) 100
- d) 15

238- Generally diagnosed by recovery & identification of typical larva in stool? ليروة في البراز

- a) Hook worms
- b) T. trichura
- c) S. stercoralis
- d) Ascaris lumbricoid

تشخيص تستفرم عينه البراز
239- Stool sample is used to diagnose?

- a) C.tetani
- b) C.diphtheria
- c) A&B
- d) HCV
- e) Non from them

لبق
240- A standard micro plates in ELISA test has?

- a) 98 wells
- b) 94 wells
- c) 96 wells
- d) 48 wells

الإنزيم
241- The enzyme in ELISA testing is present in the?

- a) Buffer
- b) Micro plate
- c) Conjugate

242- Antigen antibody complex are?

- a) Weakly bound
- b) Not bounds
- c) Strongly bound

الغسيل
243- washing must be done in all heterogeneous ELISA technique because?

- a) Increase the specificity
- b) Increase the sensitivity
- c) It removes the excess binding
- d) Increase solubility

المعلم
244- The label in ELISA tests is?

- a) Radio active substance
- b) Antibody
- c) Enzyme
- d) Buffer

خلال تنتقل شلال الطفاد
245- Polio myelitis is transmitted through?

- a) Skin
- b) Respiration
- c) Feco-oral
- d) Sexual contact

لا تنمو في
246- Malaria does not grow in?

- a) EDTA blood
- b) Heparin red blood
- c) Plasma
- d) Citrated blood

247- Serious that causes food poisoning?

- a) Staph albus
- b) Salmonella typhi
- c) Salmonella enteritidis
- d) Staph. aureus

248- Which of the following causes UTI & INDOL positive?

- a) Klebsiella
- b) Staphylococci
- c) E.coli
- d) Shigella

249- Immunoglobulin is?

- a) Beta globulin
- b) Alfa globulin
- c) Gamma globulin

250- Blood transfusion can transmit?

- a) HIV
- b) CMV
- c) HCV
- d) HBV
- e) All of the previous

Immunoglobulin

Antibodies "Ab"
- IgG - IgE - IgD
- IgM - IgA

1- Solidifying agent for media is,

A) agar.

B) wax.

C) starch.

D) non of above.

2- Color of gram stain is.

A) brown

B) red.

C) green.

D) black.

3- Those are use In gram stain except.

A) crystal violet.

B) malachite green.

D) safranin.

E) non of above

4- Temperature for autoclave is.

A) 121C for 30 min.

B) 121C for 60min.

C) 131C for 20 min.

D) non of above.

5- Microscope use in condition gram stain is.

A) Bright field microscope.

B) electronic microscope.

C) dark field microscope.

D) non of the above.

6- Thayer martin medium is the media of choice for isolation of .

A) E.coli.

B) neisseria.

C) bacillus.

D) vibrio.

7- Bacteria that has no flagella classified as ?

A) atrichon.

B) monotrichons.

C) keprotrichons.

D) peritrichons.

8- CLED agar use in urine culture because it?

A) it is transport media.

B) it is basic media.

C) Help in colonies count and prevent swarming of proteus

D) all above.

9-Agar solidified at?

A) 100C.

B) 45C.

C) 60C.

D) 75C

10- Anticoagulant that use in blood culture is?

A) fluoride.

B) EDTA.

C) citrate.

D) Sodium polyanthol sulphat(SPS)

11- Which test help in identifying staph from strepto it is.

A) catalyase(H₂O₂)

B) coagulase.

C) oxidase.

D) all above

12- Use to protect biohazard is?

A) tube.

B) Gloves.

C) syringe.

D) non of above.

13- Ziel nelson stain use in?

A) bacillus.

B) mycobacterium.

C) H.influnza.

D) non of above.

14- Bacteria that can grow in present or absent of O₂ is called?

A) facultative anaerobic.

B) strict anaerobic.

C) anaerobic.

D) non of above.

15- Optimum temperature for growth of bacteria is?

A) 50C.

B) 60C.

C) 37C.

D) non of above.

16- Salmonella in the coming medium it gives?

A) on maccokey pink colonies.

B) XLD red black colonies.

C) SS pink colonies black center.

D) all are true

17- Satellite phenomenon seen in ?

A) influenza and staph. aureus.

B) influenza and strepto.

- C) influenza and vibrio.
D) non of the above.

18- All are true about salmonella except.

- A) somatic.
B) oxidase positive.
C) H₂S produce.
D) produce acid and gas

19- Quellung test is positive with the coming except.

- A) strepto pneumonia.
B) H. influenza.
C) klebsiella.
D) corynebacteria diphtheria.

20- In significance bacteria cfu/ml is.

- A) > 100.
B) >1000.
C) >10000.
D) 100000.

21- Agar use to solidify the medium in concentration of.

- A) 1- 2 %.**
B) 3%.
C) 2 – 4%.
D) non of above.

22-Which of the following is lactose ferment.

- A) klebsiella.**
B) proteus.
C) shigella.
D) pseudomonas

23- Culture media kept in the following after plating.

- A) hot oven.
B) incubator.
C) non of above.
D) all above

24- Media for detection of hemolysis is.

- A) blood agar.**
B) neutral agar.
C) macconky.
D) all above

25- All are use in Zeilh Nelson stain except.

- A) Carbon Fuchsin.
B) Acid alcohol.
C) Methyl blue.

- D) Malachite green.

26- Color of gram negative bacteria is.

- A) red.**
B) blue.
C) violet.
D) green.

27- Most common bacteria that produces urease is.

- A) proteus.**
B) pseudomonas.
C) E.coli.
D) non of above.

28- Albert's stain use with which of the organism.

- A) E.coli.
B) H. influenza.
C) C.tetani.
D) Corynebacterium diphtheria.

29- Proteus mirabilis and proteus vulgaris all are true except:

- A) produce H₂S.
B) Non lactose ferment.
C) urease positive.
D) indole positive.

30- Gram stain smear see under:

- A) Dark field microscope.
B) Bright field microscope.
C) Fluorescence microscope.
D) Electron microscope.

31- Smear stain with fluorescence exam with:

- A) Bright field microscope.
B) Fluorescence microscope.
C) Dark field microscope.
D) Electron microscope.

32- An example for negative stain is:

- A) gram stain.
B) Alberts stain.
C) methyl blue.
D) nigrocine stain.

33- All of the following are non lactose ferment except:

- A) E.coli.**
B) shigella.
C) proteus.

D) salmonella.

34- To differentiate between staph aureus and other staph spp:

A) catalyase test.

B) Oxidase test.

C) Coagulase test(Clumping)

D) Dnase test.

35- One of the following is an example for enrichment media:

A) Blood agar.

B) CLED.

C) Nutrient agar.

D) Selenite broth.

36- One of the following is an example for enrich media:

A) Blood agar.

B) N.A.

C) Selenite broth.

D) Macconky.

37- One of the following is an example for enrichment media:

A) Blood agar.

B) N.A.

C) Selenite broth.

D) Macconky.

38-All of the following affect gram stain except.

A) smear from old media.

B) prolong decolorization.

C) staining smear stay for long time.

D) All of above.

39- The following are use in gram stain except.

A) iodine.

B) crystal violet.

C) safranine.

D) malachite green.

40- All of the following belong to enterobacteraceae except.

A) E.coli.

B) Alcaligenes.

C) proteus.

D) campylobacter.

41-All are true about salmonella except.

A) gram negative bacilli.

B) non lactose fermenters.

C) produce H₂S.

D) man is reservoir and carrier host.

E) oxidase positive.

42- The primary stain of gram stain is.

A) crystal violet.

B) safranine.

C) iodine.

D) eosin.

43-Mycobacterium named acid fast because?

A) stain easily.

B) once stained not decolorize by acid.

C) because of it is shape.

D) non of above.

44- Infections may be caused by microorganisms entering the body through:

A- Skin & mouth

B- Eyes

C- Respiratory tract

D- All of them

45- Decontaminate culture s by autoclaving at

A- 121 C for 20 min

B- boiling water for 20 min

C- 100 C for 30 min

D- non of these

46-Organisms can be picked up on the hands from the

A- Benches and equipment

B- Contaminated splashes

C- Contaminated spills

D- All of them

47- Pipettes soaked after use for at least 1h in

A- 2500 ppm chlorine

B- 1000 ppm chlorine

C- 1 % w/v virkon

D- boiling water for 20 min

48- Infected small airborne droplets into the atmosphere cause infection through

A- Skin

B- Mouth

C- Respiratory tract

D-Eyes

49- if the sterile tubes are needed autoclave it at

A- 121 C for 20 min

B- boiling water for 20 min

C- 100 C for 30 min

D- non of these

50- The organisms in the risk group 3 present a to the community

A- No risk

B- Low risk

C- Intermediate risk

D- High risk

51- Loops & forceps are sterilized by

A- Flaming until red hot

B- boiling water for 20 min

C- soaked in 1 % w/v virkon

D- non of these

52- Preventing laboratory infections depends on laboratory staff understanding

A- The routes by which infections are acquired

B- Which organisms are the most hazardous

C- Which techniques are the most hazardous

D- All of them

53- Causes of presence of pus in faeces

A- amoebic dysentery

B- intestinal schistosomiasis

C- trichuris trichura

D- all of them

53- Most bacteria can be differentiated by their Gram stain due to difference in:

A- Cell wall

B- Cell membrane

C- Capsule

D- All of them

54- Culture media contain ingredients such as

A- peptone

B- carbohydrate

C- Meat extract

D-All of them

55- Acquiring infection by mouth pipetting can occur when

A- Aerosols are produced from fluid as it is being sucked up or expelled

B- A pipette with a contaminated end is put in the mouth

C- Pipette with a chipped end causes cuts to the fingers or lips

D- All of them

56- Enriched media are required for the culture of

A- hemophilus influenza

B- Neisseria

C- streptococcus

D- All of them

57- Macroscopic appearance of faecal specimens

A- Odour

B- Specific gravity

C-Whether the specimen contain worms

D-All of them

58- Differential media contain indicators or dyes such as

A- Bromothymol blue

B- Methyl red

C- crystal violet

D- all of them

59-Pale colored faecal specimen is found in the following cases except

A- Giardiasis

B- Infections associated with intestinal malabsorption

C- Obstructive jaundice

D- E. Histolytica

60- In gram stain the first stain is

A- Crystal violet

B- Iodine

C- Safranin

D- Alcohol

61- The first urine passed by the patient at the beginning of the day should be sent for examination because the specimen is the

A- Most suitable

B- Most concentration

C-Lowest concentration

D- Available one

62 – Giemsa stain technique used in stain

A- Bacteria

B- Virus

C- Parasites

D- All of them

63- In case of urine specimen if a delay in delivery of more than 1 hour anticipated should be added to the urine:

A- Sulfuric acid

B- Boric acid

C- Acetic acid

D- Nitric acid

64- bacteria contain only one flagella called

.....

A- mono-trichous

B- peri- trichous

C- loph- trichous

D- (a , b)

65- Gastric washings should be as soon as possible After collection

A- Acidified

B- Alkalinized

C- Neutralized

D- None of these

66- bacteriology is the science which study the

A- bacteria & their characters

B- virus& their characters

C- fungi & their characters

D- no result

67- If the specimen is for the isolation of M. tuberculosis , ensure that it is Delivered to the laboratory

A- Within 2 hours

B- Kept at 4 'C until delivery is possible

C- A & B is true

D- A and B is false.

68- in the bacteria are divided at high concentration

A- Lag phase

B- Log phase

C- stationary phase

D- Decline phase

69-For 8 hours before swabbing , the patient must not be treated with

A- Antibiotics

B- Antiseptic mouth washes

C- A or B

D- None of these

70- in the the rate of cell death increase & bacterial growth stopped

A- Lag phase

B- Log phase

C- stationary phase

D- Decline phase.

71- These are media to which indicators or dyes are added to differentiate microorganisms as XLD agar

A- Basic

B- Enriched

C- Selective

D- Differential

72- Bacteria which can not retain with Gram stain's called

A- Gram negative bacteria

B- Gram positive bacteria

C- Acid fast bacteria

D- no result.

73- Decontaminate sputum by autoclaving at

A- 121 C for 15 min

B- boiling water for 20 min

C- 100 C for 30 min

D- non of these

74- Organisms can penetrate the skin through

A- Cuts & scratches

B- Airborne droplets

C- Contaminated fingers

D- Cigarettes

75- Basic media are simple media such as

A- Nutrient agar

B- Blood agar

C- XLD agar

D- TCBS agar

76- Direct finger to mouth infection as in

A- Eating food in the laboratory

B- Contact with infected material

C- Cigarettes or pipes

D-All of them

77- Stainless steel lancets sterilized in autoclave at

A- 121 C for 15 min

B- boiling water for 20 min

C- 100 C for 30 min

D- non of these

78- The organisms in the risk group 2 present a

A-No risk

B- Low risk

C- Moderate risk

D- High risk

79- Decontaminate bench surface are sterilized by

A- 1h in 2500 ppm chlorine

B- 5 % phenol

C- both A,B is true

D- 1h in 1000 ppm chlorine

80- The organisms offer a moderate risk can cause

A- Human & animal disease

B- Serious human disease but not a serious hazard

C- Serious human disease are transmitted from one individual to another

D- No disease

81- Causes of blood & mucus in feaces due to

A- amoebic dysentery

B- intestinal schistosomiasis

C- trichuris trichura

D- all of them

82-Special precautions need to be taken when

A- Collecting the specimens

B-Testing the specimens

C- Handling the infected material

D-All of them.

83- Causes of pale colored specimen in feaces

A- Giardia lamblia

B- obstructive jaundice

C- both A,B is true

D- non of these

84- Aerosols can be formed through the following ways except

A- Using a suitable loop which is properly closed

B- Opening a centrifuge immediately

C- Dropping or spilling a specimen or culture

D- Mouth pipetting

85- Decontaminate culture s by autoclaving at

A- 121 C for 20 min

B- boiling water for 20 min

C- 100 C for 30 min

D- non of these

86-Faecal concentration techniques is required in

A- Schistosoma species , few egg is produced in sever infections

B- Detection of the eggs of Taenia , cysts of Giardia

C- To check whether treatment has been successful

D-All of them

87- Selective media such as used for select salmonellae & shigellae

A- XLD

B- TCBS

C- Blood agar

D- non of these

88-Blood and mucus may be found in feaces from patients with

A- Amoebic dysentery

B- Intestinal schistosomiasis

C- Severe T. trichiura

D- All of them

89- Mycobacteria can be stained with

A- Gram stain

B- Ziehl- Neelsen stain

C- Giemsa stain

D non of these .

90-A 24 hour urine is required for the quantitative analysis of substances such

A- Hormones and phosphate

B- Steroids and calcium

C- Protein

D- All of them.

91- In acid fast stain the first is

A- Carbol fuchsin

B- Methelen blue

C- Malachite green

D- non of these

92-If immediate delivery of the urine specimen to th laboratory is not possible

A- Refrigerated at 10 C

B- Cooled

C- Refrigerated at 40 C

D- None of these

93- In gram stain the last is

A- Crystal violet

B- Iodine

C- Safranine

D- Alcohol

94- Sputum is best collected in the

A- Morning

- B- Soon after the patient wakes
- C- Before any mouth- wash is used

D- All of them

95- bacteria contain tow flagella called

- A- mono-trichous
- B- peri- trichous
- C- loph- trichous

D- no result

96- Organisms such as S. pneumonia and H. influenza require culturing A- As soon as possible

- B- After one hour
- C- After 6 hours
- D- After 12 hours

97- in the bacteria adapted on fresh medium & have no multiplication

- A- Lag phase

B- Log phase

- C- stationary phase
- D- Decline phase

98- With streptococcal sore throat, the tonsils may inflamed & covered in

A- Yellow spots

- B- Black & smelly
- C- Grayish - yellow
- D- Grayish – green

99- in the no. of divided cells tended to be equal to no of dead cells

- A- Lag phase
- B- Log phase

C- stationary phase

- D- Decline phase

100- Preservation of foods can accomplished by adding

- A- Lowering the pH
- B- Lowering the water activity
- C- Chemicals & cold storage

D- All of them

اسئلة الهيئة 2010

- 1- rice watry stool can caused by :
vibrio cholera
- 2- human scabies diagnosed by :
skin scraping of lesion
- 3- lactobacilli isolated in:
stool
- 4- which of the following cathertes collect urine specimen in prolonged period:
foley
- 5- nutrient agar is :
basic media
- 6- albert stain is used to stain:
corynebacterium diphtheria
- 7- which of the following organism oxidase positive :
pseudomonas & neisseria
- 8- which stain most commonly used in microbiology
gram
- 9- which of the following produced by staph.aureus & not produced by other staph:
coagulase
- 10- which of the following organism are capsulated:
klebsiella
- 11- which of the following gram negative rod cause desentry:
shigella
- 12- Elek test used for:
C.diphtheria
- 13- gram positive stained more easy than gram negative because:
gram positive cell wall is thin while gram negative cell wall is thick
- 14- XLD media is:
differential media
- 15- can growth in aerobic and anaerobic
clostridium
- 16- the urease test done to diagnostic of:
proteus
- 17- urine sample culture in:
CLED media
- 18- which of the following bacteria can growth on chocolate agar:

- # haemophilus influenza
- 19- gas gangrene cause by :
clostridia
 - 20- the cause of plague:
yersinia pestis
 - 21- lense near the slide in light microscope ;
objective
 - 22- all the following estimation can be done on plasma EDTA blood except ;
calcium
 - 23- most common method used to detect hormone :
ELISA
 - 24- growth hormone secretion by ;
pituitary gland
 - 25- variation in RBCs size:
anisocytosis
 - 26- hormone replication of erythrocyte (RBCs)
erythropoietin
 - 27- transmitted through sexual intercourse;
trichomonas vaginalis
 - 28- which of the following enzymes related by the kidney:
creatinin
 - 29- strong antigen:
carbohydrate
 - 30- HIV or human immunodeficiency:
AIDS
 - 31- organ excrete the uric acid :
kidney
 - 32- for mean cell volume(MCV) measured:
fl
 - 33- granulocyte cause leukemia:
CML
 - 34- cell not have nucleus:
RBCs
 - 35- which of the following transport by blood transfusion:
a- HIV
b- hepatitis
c- herpes
d- #all of the above
 - 36- normal range of uric acid:

3-7

37- in maximum store of platelet :
5 days

38- which of the following can diagnose iron deficiency;
complete blood count (CBC)

39- which of the following of immunoglobulin is flexible
Ig A

40- for malaria detection
blood smear

41- gram positive bacteria irregular in cluster;
staphylococci

42- in emergency case which of the following test do for glucose;
random blood sugar

43- life span of red blood cell is;
120 days

44- genital disease can be caused by;
gonorrhea & trichomonas

45- in the beta HCG urine :
positive or negative

46- organ that participate in bilirubin ;
liver

47- in case blood clot occurs that is called ;
blood coagulation

48- infective stage of *Schistosoma mansoni* :
cercaria

49- the cause of Chagas disease :
Trypanosoma cruzi

50- the cause of sleeping diseases:
Trypanosoma gambiense & *Trypanosoma rhodesiense*

51- cause of kala-azar;
Lishmania donovani

52- cause of oriental sore;
Lishmania tropica

53- adrenal gland is upside of:
kidney

54- which of the following express of B-cell;
plasma cell

55- normal range of cholesterol :

140-200

56- the antibodies are;
glycoprotein

57- in the lab the staff most;
a- lab coat
b- wear gloves
c- #all above

58- anemia cause;
microcytic

59- malaria diagnosis by;
thick blood film

60- *Trichinella spiralis* diagnosis by;
egg in stool

61- *Ascaris lumbricoides* infection stage:
embryonated egg

62- biochemistry test used sample except;
stool

63- leukocyte responsible for parasitic and allergic reaction:
eosinophil

64- which of the following parasite cause cerebral malaria
Plasmodium falciparum

65- infective stage of *Ancylostoma* is:
larva

66- which of the following transmit malaria :
female *Anopheles* mosquito

67- in potential diabetic patient , the confirming test used :
oral sugar tolerance

68- which of the following immunoglobulin has five molecules:
Ig M

69- deficiency of vitamin B12 cause :
anemia

70- the thrombopoietin replication by ;
liver

BACTERIOLOGY

118- All are Prokaryotic cells except:

- a- Fungi
- b- Bacteria
- c - Chlamydia
- d- Mycoplasma

119- Viruses:

- a- Contain only DNA or RNA
- b - They Contain ribosome
- c- Did not affected by antibiotics
- d- a+c

120- All of these are essential structure except:

- a- Nuclear body
- b- Spores
- c- Cell wall
- d- Plasma Membrane

121- _____ is giving the shape to the bacteria

- a.- Cytoplasmic Membrane
- b- Capsule
- c- Cell Wall
- d- All of the above

122- One of its functions is selective permeability

- a- Cell wall
- b- Plasma membrane
- c- Capsule
- d- Spores

123- They are responsible for Haemagglutination Phenomenon

- a- Flagella
- b- Fimbria
- c- Capsule
- d- Cell wall

124- Clostridium Tetani is:

- a- Atrichous bacteria
- b- Mono-trichous bacteria
- c- Amphi-trichous bacteria
- d- Peri-trichous bacteria

125- Short curved or straight rods, motile by single polar flagellum

- a- spirochaeta
- b- Vibrio
- c- Escherichia
- d- Lactobacillus

126- Small gram negative cocci, occur in pairs

- a- staphylococcus

b- streptococcus

c- neisseria

d- non of the above

127- Transfer of genetic information from one bacterium to another by

bacteriophages is:

- a. Transformation
- b. Tansduction
- c. Conjugation
- d. Mutation

128- Salmonella are:

- a- Obligatory Aerobic bacteria
- b.- Obligatory Anaerobic bacteria
- c- Facultative Anaerobic bacteria
- d- Micro-aerophilic bacteria

129- According to pH, vibrio cholera is

- a- Osmophilic bacteria
- b- Basophilic bacteria
- c- Acidophilic bacteria
- d- Neutrophilic bacteria

130- Staphylococci are:

- a- Atrichous bacteria
- b- Mono-trichous bacteria
- c- Amphi-trichous bacteria
- d- Peri-trichous bacteria

131- During replication of DNA, copying errors may occur and this is called

- a- Conjugation
- b- Transduction
- c- Transformation
- d- Mutation

132- Obligatory Anaerobic bacteria

- a- grow only in presence of oxygen
- b- grow only in absence of oxygen
- c- grow either in presence or absence of oxygen
- d- grow in presence of oxygen traces and 5 – 10% CO₂

133- Neutrophilic bacteria grow well at

- a- pH 8.5 – 9.0
- b- pH 7.2 – 7.4
- c- pH 5.0 – 5.5
- d- pH 2.5 – 3.0

134- The rate of cell death increase and bacterial growth stopped, this is

- a- Adaptation phase
- b- Exponential phase .

c- Stationary phase.

d- Decline Phase

135- Beta-hemolytic

a- Cause complete hemolysis of RBC's

b- Cause chemical change of Hemoglobin in RBC's

c- Do not cause hemolysis

d- None of them

146- Mesophilic bacteria grow at:

a- 37° C

b- 14° C

c- 60° C

d- 120° C

137- Circulation of Bacteria and its toxins in blood

a- Pyaemia

b- Toxemia

c- Bacteremia - without toxins

d- Septicemia

138- Disinfections that applied on living or injured tissues:

a- Sterilization

b- Antiseptic

c- Sanitation

d- Decontamination

139- Hot air oven is used for sterilization of

a- Glass

b- Rubber Gloves

c- Plastic Syringes

d- Catheters

140- Disinfectant for superficial fungal infection

a- Phenol

b- Potassium permanganate

c- Chlorine

d- Hypochlorite compounds

141- Rifampin

a- inhibit cell wall synthesis

b- inhibit protein synthesis

c- inhibit folic acid pathway

d- inhibit mRNA synthesis

142- Transacetylase inactivate

a- aminoglycosides

b- chloramphenicol

c- penicillin

d- cephalosporins

143- The color of gram positive bacteria is

a- Yellow

b- Black.

c- Pink

d- Violet

144- Selective media for fungi

a- blood agar

b- Mac Conkey agar

c- Nutrient agar

d- Sabourand's dextrose agar

145- Histoplasma is a :

a- Systemic mycosis

b- Sub – Cutaneous mycosis

c- Cutaneous mycosis

d- Superficial mycosis

146- All are asexual spores produced by mould except

a- Conidio – spores

b- Sporangio – spores

c- Endospores

d- Arthro – spores

147- They reproduce only by Asexual reproduction

a- Blastomycosis

b- Deutromycosis

c- Ascomycetes

d- Zygomycetes

148- The functions of cell wall is all of the following except:

a- Giving the shape to the bacteria

b- Carrying somatic antigen

c- Selective permeability & transport of solutes = plasma membrane

d- Protect the bacteria from plasmolysis

149- Atrichous Bacteria are:

a- Bacteria contain one flagellum

b- Bacteria contain 2 flagella

c- Bacteria without flagella

d- Bacteria with a tuft of flagella

150- _____ are essential for host cell attachment:

a- Flagella

b- Fimbria

c- Spores

d- Capsules

151- Irregular clusters of spherical cells:

- a- Streptococcus
- b- Staphylococcus
- c- Lactobacillus
- d- Escherichia

152- Clostridium Botulinum is:

- a- Obligatory Aerobic Bacteria
- b- Facultative Anaerobic Bacteria
- c- Obligatory Anaerobic Bacteria
- d- Micro- aerophilic Bacteria

153- Basophilic Bacteria grow well at:

- a- pH 8.5 – 9.0
- b- pH 7.2 – 7.4
- c- pH 5.0 – 5.5
- d- None of the above

154- Cells are divided at high & constant rate:

- a- Decline Phase
- b- Stationary Phase
- c- Log Exponential Phase
- d- Adaptation Phase

155- The dominant bacterial species in dental plaque are:

- a- Coagulase Negative Staphylococci
- b- Lactobacillus
- c- Bacteroides
- d- Streptococcus Sanguis

156- The spread of Pyogenic Bacteria in blood stream to different organs & produce multiple abscess is:

- a- Septicemia
- b- Bacteremia
- c- Toxemia
- d- Pyaemia

157- Inhibit the growth of micro organisms

- a- Bacteriostatic
- b- Bactericidal
- c- Fungicidal
- d- Germicidal

158- To sterilize fluid damaged by heat:

- a- Gaseous Sterilization
- b- Heat Sterilization
- c- Filtration
- d- Ionizing Radiation

159- For water disinfection we use:

- a- Hydrogen peroxide

b- Formaldehyde

c- Chlorine

d- Hypochlorite compounds

160- Mechanism of action of penicillin:

- a- Block peptidoglycan synthesis
- b- Inhibit peptidoglycan cross – linking
- c- inhibit folic acid pathway
- d- inhibit protein synthesis

161- Sulfonamides:

- a- inhibit cell wall synthesis
- b- inhibit protein synthesis
- c- inhibit DNA synthesis
- d- inhibit folic acid pathway

162- Acetylase inactivates:

- a- B – Lactam antibiotics
- b- Aminoglycosides
- c- Cloramphenicol
- d- All of the above

163- Ringworm disease is caused by

- a- Zygomycetes
- b- Ascomycetes
- c- Blastomycosis
- d- None of the above

164- For wet – mount technique we add:

- a- NaOH
- b- KOH
- c- H₂O₂
- d- All of the above

165- They are transmitted by arthropods

- a- Chlamydia
- b- Spirochetes
- c- Mycoplasma
- d- All of the above

166- In the past they were listed as large viruses

- a- Rickettsia
- b- Mycoplasma
- c- Chlamydia
- d- None of the above

167- Bacteria multiply by:

- a- Replication cycle
- b- Simple binary fission
- c- Sexual reproduction
- d- All of the above

168- It protects bacteria from antibiotics

a- Capsule

- b- Cell membrane
- c- Flagella
- d- Fimbria

169- Vibrio cholera is:

a- Mono –trichous bacteria

- b- Atrichous bacteria
- c- Lopho-trichous bacteria
- d- Peri-trichous bacteria

170- Short rods, motile by peritrichous flagella

- a- Spirochaeta
- b- Lactobacillus

c- Escherichia coli

- d- Vibrio

171- To take up soluble DNA fragments derived from other, closely related species is:

- a. Mutation

b. Transformation

- c. Transduction
- d. Conjugation

172- Tuberculosis are

- a- micro-aerophilic
- b- Facultative anaerobic
- c- Obligatory anaerobic
- d- Obligatory aerobic

173- According to pH, Lactobacillus is

- a- Neutrophilic bacteria
- b- Acidophilic bacteria
- c- Basophilic bacteria
- d- None of the above

174- Bacteria without cell Wall

- a- Chlamydia
- b- Rickettsia
- c- Mycoplasma
- d- Spirochetes

175- Brucella Melitensis is

- a- Obligatory aerobic bacteria
- b- Obligatory anaerobic bacteria
- c- Facultative anaerobic bacteria
- d- Micro-aerophilic bacteria

176- Pseudomonas aeruginosa is

- a- Peri-trichous bacteria
- b- Lopho-trichous bacteria
- c- Amphi-trichous bacteria
- d- Monotrichous bacteria

177- Genetic information of bacteria is carried on

a- Messenger RNA ??

- b- Transfer RNA
- c- Transcript RNA
- d- Double – Stranded DNA

178- Thermophilic bacteria grow at

a- 60 – 80 ° C

- b- 0 - 20° C
- c- 37° C
- d- 100 - 120° C

179- Acidophilic bacteria grow at

a- pH 7.2 – 7.4

b- pH 5.0 – 5.5

- c- pH 8.5 – 9.0
- d- None of the above

180- Mycoplasma is

- a- Neutrophilic bacteria
- b- Acidophilic bacteria
- c- Basophilic bacteria
- d- All of the above

181- It is the adaptation of bacteria to the fresh medium

a- Lag phase

- b- Decline phase
- c- Logarithmic Phase
- d- Stationary phase

182- Bacteria which do not cause hemolysis is

- a- Beta-Hemolytic
- b- Alpha-Hemolytic
- c- Gamma Hemolytic
- d- None of the above

183- Normal flora of Lower intestine are all of the following except:

- a- Staphylococci
- b- Diphtheroids
- c- Shigella
- d- Lactobacillus

184- Opportunistic pathogens are all of the following except:

- a- Cause a disease when the host defense are suppressed.
- b- Are normal flora of healthy body
- c- Are greatly harmful
- d- Do not invade the body or tissue.

185- For disinfection of mattresses :

- a- Hot air oven
- b- Autoclave
- c- Ethylene Oxide
- d- Hydrogen Peroxide

186- Psychrophilic bacteria grow at:

- a- 10 ° C
- b- 6 ° C
- c- 14 ° C
- d- 37 ° C

187- Bacteria which contain chlorophyll

- a- Heterotrophic bacteria
- b- Autotrophic bacteria
- c- Photosynthetic bacteria
- d- All of the above

188- Tricophyton is one of

- a- Yeast
- b- Moulds
- c- Dermatophyte
- d- Dimorphic Fungi

189- Plasmogony is one of

- a- Dermatophytes
- b- Dimorphic Fungi
- c- Yeast
- d- Moulds

190- Color of gram negative bacteria is

- a- Violet
- b- Green
- c- Red
- d- Black

191- Acid Fast Bacteria

- a- Salmonella
- b- Shigella
- c- M. Tuberculosis
- d- E – Coli

192- Spherical or coccoid cells occurring in chains

- a- Staphylococci
- b- Streptococci
- c- Lactobacillus
- d- Spirochaeta

193- carries the genetic information

- a- the envelope
- b- the capsid
- c- the nucleic acid

d- the prion

194- may be seen under light microscope

- a- rotavirus
- b- influenza virus
- c- herpes virus
- d- pox virus

195- viruses may be:

- a- monomorphic
- b- pleomorphic
- c- dimorphic
- d- all of the above

196- viral capsid is formed of:

- a- protein
- b- glycogen
- c- lipoprotein bilayer
- d- glycoprotein

197- class III in Baltimore classification is:

- a- double stranded DNA viruses
- b- single stranded DNA viruses
- c- double stranded RNA viruses
- d- single stranded RNA viruses

198- Hierarchical virus classification system uses the following characters except:

- a- nature of nucleic acid
- b- capsid symmetry
- c- diameter of virion & capsid
- d- virus molecular weight

199- in viral replication which is true:

- a- penetration is the 1st step
- b- assembly is the last step
- c- release is the last step
- d- all of the above

200- virion:

- a- may be extracellular phase of virus
- b- may be intracellular phase of virus
- c- can grow and replicate
- d- means “ virus – like “

201- pleomorphic viruses means :

- a- virus which have constant shape
- b- virus that may appear in 2 forms
- c- virus that have not a constant morphology
- d- virus that have spherical shape

202- vapor of gold is used in :

- a- shadow casting technique

- b- negative staining technique
- c- positive staining technique
- d- non of the above

203- direct diagnosis of virus :

- a- ELISA ~~Antibody~~
- b- CFT
- c- IFT
- d- PCR ~~virus~~

204- all of the following are required in cell culture except:

- a- neutral PH
- b- presence of buffer salts
- c- presence of antibiotics
- d- incubation at 20 C ((30-37 C))

205- all of the following are diagnostic molecular biological technique except:

- a- PCR
- b- ELISA
- c- nucleic acid hyperdization
- d- DNA finger printing

206- PCR require all of the following except:

- a- extracted DNA template
- b- 2 specific primers
- c- reation buffer
- d- RNA polymerase

207- bacteriophage is :

- a- virus that can be killed by antibiotic
- b- virus that act like a bacteria
- c- bacteria that act like a virus
- d- virus that infect bacteria

208- all of the following viruses are transmitted by blood except:

- a- HIV
- b- HBV
- c- HCV
- d- herps virus

209-all of the following are RNA viruses except:

- a- corona viridase
- b- reoviridase
- c- picorona viridase
- d- pox viridase

210- penetration of naked virus is by :

- a- fusion
- b- endocytosis
- c- translocation
- d- all of the above

211- amniotic cavity inoculation is one type of virus culture in:

- a- tissue wall
- b- lab animals
- c- embryonated egg
- d- non of the above

212- is an in vitro method amplification of a short sequence of target DNA

- a- PCR
- b- hyberdization
- c- finger printing
- d- all of the above

213- nucleic acid hyperdization means:

- a- probe aneling or binding with it's complementary segment of NA
- b- fragmentation of nucleic acid
- c- amplification of nucleic acid
- d- non of the above

214- DNA hyperdization is performed by:

- a- primers
- b- DNA labeled probe
- c- restriction endonuclease
- d- non of the above

215-PCR starts with :

- a- annealing
- b- denaturation of DNA
- c-extension of primers
- d- non of the above

216- is a piece of DNA fragment of a particular gene that can bind specially with it's complementary piece of DNA:

- a- codon
- b- probe
- c- LCR
- d- code

217- how many primers are used in PCR :

- a- non
- b- one
- c- two
- d- three

304-Lowenstein-Jensen media is used for the isolation for:

- a- neisseria gonorrhea
- b- mycobacterium tuberculosis

- c- haemophilus influenza
- d- staphylococcus aureus

305- Hekton-Enteric agar is the selective media for:

- a- salmonella
- b- streptococcus
- c- staphylococcus
- d- all of the above

306- the selective media for isolation of fungi is:

- a- S-S agar
- b- XLD agar
- c- sabouraud glucose agar
- d- Hekton-Enteric agar

307- gram positive rods with Chinese letter appearance:

- a- mycobacterium tuberculosis
- b- corynebacteria diphtheria
- c- clostridium tetani
- d- staphylococcus pneumonia

308- E lek test is done to diagnose :

- a- streptococcus
- b- staphylococcus aureus
- c- clostridium tetani
- d- corynebacteria diphtheria

309- all are lactose fermenter except:

- a- E-COLI
- b- proteus
- c- klebsiella
- d- enterobacter

310- produce pale colonies on MacConkey's agar and have tendency to swarm on blood agar:

- a- salmonella
- b- shigella
- c- klebsiella
- d- proteus

311- lactose frementer gram negative bacilli with mucoid growth:

- a- salmonella
- b- shigella
- c- klebsiella
- d- proteus

312-non lactose fermenter gram negative bacilli produce H₂S :

- a- salmonella
- b- shigella

- c- klebsiella
- d- proteus

313- Widal test is done for diagnosis of :

- a- salmonella
- b- shigella
- c- E-coli
- d- klebsiella

314- the causative agent of enteric fever:

- a- salmonella
- b- shigella
- c- klebsiella
- d- proteus

315- the most common cause of urinary tract infection :

- a- E-coli
- b- salmonella
- c- shigella
- d- streptococcus

316- an important cause of diarrhea in infant:

- a- staphylococcus
- b- E-coli
- c- salmonella
- d- shigella

317- the most common causative agent for peptic ulcer :

- a- campylobacter
- b- H-pylori
- c- V-cholera
- d- all of the above

318- TCBS is the selective media for isolation of:

- a- H-pylori
- b- V-cholera
- c- E-coli
- d- H influenza

319- gram negative bacilli strict aerobes grows on simple media producing a characteristic greenish pigment:

- a- campylobacter
- b- pseudomonas
- c- pasterulla
- d- bordetella

320- the bacteria which cause scarlet fever:

- a- staphylococcus
- b- streptococcus
- c- salmonella
- d- shigella

321- antistreptolysin O titer (ASO) is done for the diagnosis of:

- a- group A streptococcus
- b- group B streptococcus
- c- staphylococcus aureus
- d- staphylococcus albus

323- Löffler's serum is used for isolation of:

- a- anthrax
- b- clostridium
- c- diphtheria
- d- T.B

324- gas gangrene is caused by:

- a- clostridium tetani
- b- clostridium botulinum
- c- clostridium welchii
- d- non of the above ((clostridium perfringens))

325- Bacillary dysentery is caused by:

- a- salmonella
- b- shigella
- c- cholera
- d- all of the above

326- the cause of plague:

- a- Y-enterocolitica
- b- Y-pestis
- c- Y pseudotuberculosis
- d- non of the above

327- treponema palladium is the cause of :

- a- T.B
- b- gonorrhea
- c- syphilis
- d- AIDS

328- the venereal disease research laboratory test (VDRL) is done for diagnosis of:

- a- T.B
- b- gonorrhea
- c- syphilis
- d- AIDS

329- Trachoma is caused by:

- a- mycoplasma
- b- chlamydiae
- c- rickettsia
- d- mycobacteria

391- M-tuberculosis bacilli stain with :

- a- gram stain
- b- Ziehl Nelson stain
- c- Gimesa stain

d- all of the above

392- AIDS is transmitted through :

- a- food
- b- blood
- c- semen
- d- (b) & (c)

393- bacteria which cause syphilis:

- a- Neisseria gonorrhea
- b- Vincent angina
- c- Treponema palladium
- d- Yersinia pestis

394- to diagnose syphilis:

- a- RPR
- b- VDRL
- c- Wasserman
- d- all of the above

395- streptococci secrete:

- a- streptolysin O
- b- streptolysin S
- c- streptokinase
- d- all of the above

396- disease caused by streptococci:

- a- scarlet fever
- b- purpural sepsis
- c- rheumatic fever
- d- all of the above

397- staphylococci secrete:

- a- coagulase enzyme
- b- fibrinolysin
- c- hyaluronidase
- d- all of the above

398- gram positive bacilli:

- a- Klebsilla
- b- Salmonella
- c- Proteus
- d- C-diphtheria

399- meningococcal meningitis is transmitted by :

- a- food
- b- droplet
- c- touch
- d- all of the above

400- dark field microscopy is used to diagnose :

- a- T.B.
- b- syphilis
- c- gonorrhea

d- AIDS

401- it cause food poisoning with flacid paralysis:

- a- clostridium tetani
- b- clostridium welchii
- c- clostridium botulinium
- d- all of the above

402- the infective stage of plasmodium vivax :

- a-merozoites
- b- sporozoites
- c- schizont
- d- trophozoite

403- Pirenella conica snail is the intermediate host of:

- a- schistosoma haematobium
- b- fasciola hiptica
- c- heterphyes heterophyes
- d- diphyllbothrium latum

404- Bulinus truncates snail is the intermediate host of :

- a- fasciola hepatica
- b- fasciola gigantica
- c- schistosoma haematobium
- d- schistosoma mansonii

405- to isolate meningi cocci we have to culture the sample on:

- a- Bordet Gengou
- b- modified Thayer martin media
- c- Lowenstein Jensen media
- d- all of the above

406- to isolate fungi :

- a- Brain-Heart infusion media
- b- tissue culture
- c- Lowenstein –Jensen media
- d- chocolate agar

407- to isolate H- influenza:

- a- blood agar
- b- chocolate agar
- c- mac Conkey media
- d- all of the above

408- the bacteria which cause pseudomembranous conjunctivitis :

- a- N.gonorrhea
- b- C. diphtheria
- c- staphylococcus
- d- Chlamydia

409- the best sample to diagnose meningitis :

- a- blood
- b- sputum
- c- CSF
- d- urine

410- used to stain Chlamydia

- a- gram stain
- b- giemsa stain
- c- wright stain
- d- all of the above

411-..... is used as transport medium for sample in which cholera is suspected

- a- Cary-Blair media
- b- Stuart media
- c- Alkaline peptone water
- d- glycerol

412- the color of XLD medium:

- a- green
- b- red
- c- yellow
- d- blue

413- CIN medium is used to isolate:

- a- E.coli
- b- Vibrio cholera
- c- yersinia
- d- salmonella

414- to make wet mount preparation:

- a- 10 % KOH
- b- 10 % Na OH
- c- 10 % Na CO₃
- d- 10% Na Cl

415- we do wet mount preparation for vaginal smear To diagnose:

- a- T.vaginalis
- b- N.gonorrhea
- c- streptococci
- d- staphylococci

416- to isolate viruses:

- a- Loeffler media
- b- tissue culture
- c- Bordet –Gengou media
- d- Brain- Heart infusion

417- to diagnose whooping cough :

- a- Bordet –Gengou media
- b- Lowenstein –Jensen media
- c- modified Thayer martin media

d- New York city agar

418- to diagnose systemic infection we do :

- a- urine culture
- b- CSF culture
- c- blood culture
- d- sputum culture

419- we give no growth for blood culture after:

- a- 1 week
- b- 8 weeks
- c- 6 weeks
- d- 3 weeks

420- to dissolve mucous in sputum sample :

- a- 10% NaOH
- b- 30 % NaOH
- c- 10 % KOH
- d- 10% NaCl

421- mutualism means:

- a- one partner benefits , other unaffected
- b- both partner benefit
- c- one partner benefit , other damaged
- d- living together

422- Commensalisms means:

- a- living together
- b- one partner benefit , other damaged
- c- both partner benefit
- d- one partner benefits , other unaffected

423- Balantidium coli moves by:

- a- flagella
- b- cilia
- d- pseudopod
- d- all of the above

424- Mouth inhabitant:

- a- Trichomonas hominis
- b- Trichomonas tenax
- c- Trichomonas vaginalis
- d- giardia lamblia

425- Transmitted by sexual intercourse:

- a- toxoplasma
- b- giardia lamblia
- c- Trichomonas vaginalis
- d- all of the above

465- citrate utilization test is done to assist identification of:

- a- gram +ve bacteria
- b- gram -ve bacteria

c- enterobacteria

d- enterococcus

466- the Kovac's reagent used in the following biochemical tests:

- a- catalase
- b- coagulase
- c- indole
- d- methyl red

467- positive results for H₂S production appear as Colour:

- a- black
- c- yellow
- c- red
- d- green

468-..... Give positive coagulase test:

- a- streptococci
- b- staphylococcus aureus
- c- staphylococcus saprophyticus
- d- Escherichia coli

469- methyl red test is performed with:

- a- Erlich reagent
- b- Kovac's reagent
- c- Voges proskaur
- d- non of the above

470- give positive result with urease test:

- a- salmonella
- b- shigella
- c- Y. enterocolitica
- d- all of the above

471-..... test is used to differentiate between bacteroides & brucella:

- a- indole
- b- methyl red
- c- H₂S production
- d- nitrate reduction

472- DNAase test is positive with:

- a- streptococcus pneumonia
- b- E.coli
- c- staphylococcus aureus
- d- staphylococcus epidermis

473- solution used in the gram stain technique acts as a mordant:

- a- crystal violet
- b- safranine
- c- iodine
- d- alcohol

474- the counter stain in Ziehl- Neelson stain is :
a- malachite green
b- methylene blue
c- iodine
d- (a) & (b)

475- bile solubility test is positive with :
a- streptococcus viridans
b- streptococcus pneumonia
c- streptococcus agalactiae
d- streptococcus pyogenes

476-litmus milk decolorization test assist the identification of :
a- enterobacteria
b- bacteroides
c- brucella
d- enterococci

PARASITOLOGY

426- Intermediate host of Trypanosom:
a- triatoma megista
b- sand fly
c- tse tse fly
d- anopheles

427- The cause of chaga's disease:
a- trypanosoma gambiense
b- trypanosoma rhodesiense
c- trypanosoma cruzi
d- leishmania braziliense

428- The cause of sleeping sickness:
a- trypanosoma gambiense
b- trypanosoma cruzi
c- trypanosoma rhodesiense
d- (a) & (c)

429- Cause Kala- azar:
a- leishmania tropica
b- leishmania braziliense
c- leishmania donovani
d- leishmania mexicana

430-cause oriental sore:
a- plasmodium ovale
b- leishmania tropica
c- leishmania donovani
d- trypanosoma rhodesiense

431- Its trophozoite is shaped like a pear , has the 2 nuclei that resembles eyes and 4 pairs of flagella that look like hair:
a- Trichomonas vaginalis
b- entamoeba histolytica
c- giardia lamblia
d- endolimax nana

432- Pear shaped trophozoite with 4 anterior flagella and a 5th forming the outer edge of a short undulating membrane:
a- Trichomonas hominis
b- entamoeba histolytica
c- entamoeba coli
d- endolimax nana

433- sometimes it cause metastatic infection which involve liver, lung, brain or other viscera:
a- giardia lamblia
b- Trichomonas vaginalis
c- entamoeba histolytica
d- balantidium coli

434- Intestinal ciliate:
a- entamoeba histolytica
b- entamoeba coli
c- giardia lamblia
d- balantidium coli

435- Asexual multiplication of plasmodium vivax takes place in:
a- anopheles
b- sand fly
c- human
d- tse tse fly

436- Plasmodium falciparum is transmitted by :
a- triatoma megista
b- tse tse fly
c- anopheles
d- sand fly

437- Moves by pseudopods:
a- giardia lamblia
b- balantidium coli
c- entamoeba histolytica
d- Trichomonas vaginalis

438- it's one of the round worms:
a- schistosoma mansoni

b- schistosoma haematobium
c- ascaris lumbricoides
d- fasciola hepatica

439- it's one of the tape worms:

a- ascaris lumbricoides
b- ancylostoma duodenal
c- trichuris tricura
d- taenia saginata

440- barrel shaped egg, yellow brown in color with a colorless protruding mucoid plug in each end:

a- egg of ascaris lumbricoides
b- egg of ancylostoma duodenal
c- egg of trichuris tricura
d- egg of taenia saginata

441- large oval egg ,pale yellow brown in color has a characteristic side spine & contain a fully developed

miracidium , the worm is:

a- S.mansoni
b- S. hematobium
c- A. duodenal
d- T. solium

442- large oval egg , pale yellow brown in color has an indistinct operculum and contains unsegmented ovum:

a- S. hematobium
b- fasciola hepatica
c- heterophyes heterophyes
d- taenia solium

443- round egg , embryo is surrounded by a thick brown radially striated wall , hooklets are present in the embryo:

a- S. hematobium
b- fasciola hepatica
c- A. duodenal
d- T. solium

444-oval colorless egg,flattened on one side & contains a larvae:

a- hymenelopsis diminuta
b- dipylidium caninum
c- entrobium vermicularis
d- taenia saginata

445- the cause of malignant malaria:

a- plasmodium vivax
b- plasmodium ovale
c- plasmodium malaria
d- plasmodium falciparum

446- infection occur when infective filariform larvae penetrate the skin:

a- ascaris lumbricoides
b- ancylostoma duodenal
c- fasciola hepatica
d- heterophyes heterophyes

447- lives in the liver and bile ducts of sheep and cattle:

a- strongyloides stercoralis
b- schistosoma mansoni
c- fasciola hepatica
d- ancylostoma duodenal

448-segment found in stool which is white & opaque & measures 20 mm long by 6mm wide with uterus that has a central stem and more than 13 side branches on each side...the worm is :

a- fasciola hepatica
b- trichuris trichuris
c- heterophyes heterophyes
d- taenia saginata

449- infection is by eating raw or under cooked fish:

a- fasciola hepatica
b- trichuris trichuris
c- heterophyes heterophyes
d- taenia solium

450- is transmitted by eating raw or under cooked beef:

a- heterophyes heterophyes
b- taenia saginata
c- schistosoma mansoni
d- ancylostoma duodenal

هذي الاسئلة الي تذكرتها طبعاً

Clen The Microscope Lense :

Xylene

Diagnostic stage of Ascaris lumbricoidis:

- egg in stool-

One is gram +ve oval (cocci)

:

- 1- Bacillus anthracis

- 2- Meningococci

- **Pneumococci**

وجاني سؤال كيف تفرق بين E.coli و Entamoeba histolitica تحت المجهر

org cause blood in stool:

Shigella sp.

shistosoma hematobium

وجاني سؤال عن KALA-AZAR لكن للاسف نسيت السؤال والخيارات
وجاني سؤال اذا كلن عند المرة ab والرطى a انتي يحطج
الطفل لا يكون عندة

A

B

Ab

O

وجاني سؤال كم كمية uric acid في الاسل
وسؤل

30) CPD_A anticoagulant used to store blood for:

35 days 45 days

5 days

15 days

Non of the above

4) One is always gram -ve rods:

1-Haemophilus Influenza

2-Shigella

3- E.coli

4- Salmonella

6- Borditella Pertusis

24) in cardiac infraction one of the measurements is not benefited:

Creatinine

CK

LDH

GOT

in LIVAR infraction one of the measurements is not benefited:

Creatinine

CK

LDH

GOT

The sterilization in hot air oven performed at:

a) 121 c° for 15-30 min.

b) 160 c° for 60 min. c) 121 c° for 10 min.

d) 160 c° for 10 min.

while using the pregnancy test we are measuring?

- Progesterone.

- Prolactineh

HCG

49- Hyperglycemic hormone

a) Glucagon

b) Insulin

c) Amylase

d) Pepsine

e) Trypsinogene

108- Na is the main?

a) Intra cellular anion

b) Intra cellular cation

c) Extra cellular cation

d) Extracellular anion

3- lactobacilli isolated in:

stool

8- which stain most commonly used in microbiology

gram

-which of the following gram negative rod cause desentry:

shigella

- granulocyte cause leukemia:

CML

- in the beta HCG urine :

positive or negative

- infective stage of sichtosoma mansonii :

cercaria

-biochemistry test used sample except;

#stool

16) One is always non motile gram -ve rods:

1- Haemophilus Influenza

Shigella-2

21) Function of Thyroxin is:

1- Increase Oogenesis

2- Stimulate contraction of uterus

3- Increase basal metabolic

48) Immunoglobulin pregnancy test related to:

1- IgG

2- IgM

3- Human chorionic Gonadotropin

- Normal prothrombin time (PT) is:

a- 30-45 seconds

b- 30-45 minutes

d- 12-15 minutes

e-10-16seconds

CPD_A anticoagulant used to store blood for:

a) 35 days**

b) 45 days

c) 5 days

d) 15 days

e) Non of the above

Prothrombin time detects:

a) Extrinsic pathway of coagulation*

- b) Intrinsic pathway
- c) Platelets activity
- d) Bleeding time

Haemocytometer used in count of

- a) White blood cells(WBCs)
- b) Red blood cell (RBCs)
- c) Platelets

d) ALL*

Megaloblastic anaemia caused by

- a) Iron deficiency
- b) Folic acid and B12 deficiency***
- c) Zinc deficiency
- d) Globin deficiency

In new born Hb F is up to

- a) 20%
- b) 70%***
- c) 50%
- d) 30%

1- autoclave work at => 121 c 20 min

2- schistosoma hematobium causes => urinary tract infection

3- neutrophil is increased in => bacterial infection

4- parasite is infected vagina and urethra => trichomonas vaginals

5- leishmania is transported by => sand fly

6- sleeping sickness is from this parasite => african [gambienes]trypanosomosis

7- taenia diagnosis by => eggs in stool

8- CPD is => 21 days

9- CPD-A is => 35 days

10- who you differential between salmonella and shigella => by motility

11- adult hb is => hbA

12- microcytic hypochromic anemia => iron deficiency anemia

13- malaria come by => female mosquito

14- reticulocytes from => RBCs

15- plasma contain 90 % water ,, 10% another substance

16- Ig is have 5 chain => IgM

17- Ig is have 4 chain => IgG

18- platelets store for => 5 days

19- leucocytes responsible parasites => eosinophil

20- which WBCs give immunoglobulin => lymphocytes

21- ALT best for => liver test

22- heparin => protein

treponema palladium is the cause of : -1

a- T.B

b- gonorrhea

c- syphilis

d- AIDS

2_ Bacillary dysentery is caused by:

a- salmonella

b- shigella

c- cholera

d- all of the above

3_ all the following estimation can be done on plasma EDTA blood except:

a_ glucose

b_ cholesterol

c_ urea

d_ calcium

4- cell not have nucleus ?

RBC

5_ infection stage in tenia saginata:

a_ cercaria

b_ cysticercus

Which of the following of immunoglobulin unflexible:6-

a_ IgG

b_ Ig M

c_ Ig A

d_ Ig D

7-Strong antigen

1-vitamin

2-carbohydrate

3-proteins

8- if infant has RH+ve & mother RH-ve must give

A- Anti-D immunoglobulin

B- Anti-E immunoglobulin

C- Anti-C immunoglobulin

D- Anti-e immunoglobulin

E- Anti-c immunoglobulin

8- nutrient agar is

A- basic media

B- differential media

C- selective media

D- enriched media

9- which the following catheters collect urine specimen in prolonged period

B- hard

C- soft

D- italian

E- foley

10- yellow brown barrel-shaped egg,colorless producing plug polar is

A- ascaris

B- tenia solium

C- Trichuris trichiura

D- -----

-Serious organism that causes food poisoning11

Staph. albus

Salmonella enteritidis

Clostridium sp. pelica

Salmonella typhi

12- in case blood clot occur that is called

- hemolysis
- blood coagulation
- thrombosis

13- all of bacteria cause pharyngitis except

نسيت الخيارات... وإذا مو غلطانه كانت الكاليسلا

14- تستخدم جميع الاختبارات التالية في معمل الكيمياء إلا:

CBC

15- can grow in an aerobic

Chlostridium

18- XLD media

- selective
- differentiat
- basic

16- best media for sputum culture hemophilis

- blood agar
- mac
- cled
- chocolat

17- وحده قياس mcv

- p/g
- ml/ blood
- mg/dl
- fl

18. genital disease can caused by ?

Gonorrhea and trichomonas .

19 - which of the following organ excrete the uric acid

- A- liver
- B- kidney

20-which of the following produce by staph.aureus & not produced by other staph

- A- DNA produce
- B- coagulase
- C- catalase

21-CPD_A anticoagulant used to store blood for:

- 35
- 45
- 5
- 13

Leukocyte responsible for cellular immunity:22-

- T.lymphocyte
- B. lymphocyte
- Monocyte

Least abundant leukocyte:23

Basophils

Test VDRL orRPR:24-

Syphilis(T.pallidum)

The sterilization in hot air oven performed:25
160 for 45-60

Nutrient agar:

Basic media

Media use for tuberculosis:26

Lewis Jensen media

Vi Ag is seen in27

Capsule

Pili

Spore

Flagella

28Which of the following enzyme detect in the condition liver and bone disease:

Alkaline phosphatase(ALP)

Prolactin in female:29

Milk hormone

30During reaction of two chemical substances,the color produced asses by:

Spectrophotometer

Alkali skin burn treatment by neutralization with:31

Boric acid powder

Use to determined Kidney :32

Creatinin

33All the following estimations can be done on plasama EDTA blood except:

Calcium

34Glycosated hemoglobin(HbA1c)give an idea for glucose conc.about :

90 days

Monospot test is done to diagnose:35

Infectious mononucleosis

B deficiency lead to :36

Megaloblastic hematopoiesis (anemia)

37سؤال عن التخفيف فيه 2 و 5 خذ ما ذكر الصيغة بالضبط بس كانت الخيارات كذا:

1:25

1:35

1:236

اخترت الى خيار

الاسئلة ماجاتني بنفس الصيغة هذي بس هذا هو اساس السؤال حتى لو تغيرت الصيغة يضل الجواب نفسه فلا تخافون لو جاكم السؤال بصيغة مختلفة..

Eosinophilia is seen in? -1

2- AML different from ALL in ?

Granule neutrophile

3- AB father and B mother give phenotype except :
A , AB , B , **O**

4- blood collect in anticoagulant tub should be :

- Clot
- hemolysis
- gently mix**

5- spherocytosis: **مذكرة السؤال من الجواب كل**
Osmatic fragility

7-CPD anticoagulant to store blood for :

- 21**
- 35
- 45

8- blood collect in anticoagulant tub should be:

- **Not clot**
- hemolysis
- not gently mix

9- the colonies of Mycobacteria in Lowenstein Jensen medium "
Raised , dry cream

10- Zile-Neelsen stain for staining :
mycobacteria

12- in O blood group the Abin serum is :

- **anti And B-** anti A
- anti b
- non of above
- all of above

13- in biochemistry test tube use are :

- **green**
- blue
- EDTA
- all of above

14- all are blood function except :
مب ذاكه الخيارات بس ذاكه الجواب اللي اخترته الا هو hormone production

15-the (u) unit use to evaluation?

- protein in serum
- hemoglobin
- hormone assay
- enzymatic activity**

16- a semen specimen , contain source of the spermatozoa energy is :

- glucose
- mannose
- **fructose**
- sucrose

17- during reaction of 2 chemical substances , the color produced asses by :

- **spectrophotometer**
- flame photometer
- ELISA
- PCR

18-all the following estimations can be done on plasma EDITA blood except:

- cholestrol

- glucose
- **calcium**
- urea
- triglyceride

19- HbA1c give an idea for glucose conc.about :

- **90 dayse**
- 5 month
- 20 dayes
- 4 weeks

20-while using the pregnancy test we are measuring ?

- total HCG
- Beta HCG & LH
- **Beta HCG**
- Alpha HCG

21- in potential diabetic patient, the confirming test used is

- A- random blood sugar
- B- fasting blood sugar
- C- **oral blood sugar tolerance (GTT)**
- D- all of the above

22- non streptococci:

- S.pyogenes
- S.agalatiata
- **S.aureus**

23- Hiv and hepatitis translate by :

- blood
- urin
- body fluid
- **All of above**

24- which of the following bacteria can growth on chocolate agar:

- a_ hemophilus influenza

25- bacteria arranged in chinese litters?
C.diphtheriae

26- the Organ responsible for maturation of B-lymphocyte :

- liver
- kidney
- thymus
- **bone marrow**
- spleen

27- one is motile gram -ve rod aerobeic:

- Hinfuenza
- B.anthraxis
- **P.aerogenes-**
- vibro cholerae
- yersinia pestis

28- autoclave sterilize in ?

- **121c-20 min**
- 125-35 min
- 115-35 min
- 160c-45-60 min

29- media use fo differentiate between L.F and N.L.F?

- MacConkey agar
- chocolate
- blood agar
- XLD
- TCBS

30- lactos (+) , Indol (+) , MR (+) , VP (-) , citrate (-) are :

- Escherichia
- Klebsiella
- salmonella

which of the following organism is an anaerobic bacterium?

- Clostridium spp
- haemophilus
- E.coli
- yersinia enterocolitica

31- Salmonella causes?

موذلكره الخيارات بس الجواب كان food poisoning

جاني سؤال عن : not found in spectrophotometer

هذي الاسئلة اللي قدرت اتذكرها..

ركزوا على تصنيف البكتيريا من حيث aerobe , anaerobe جاني اكثر
من سؤال عليهم سؤال كانت (+) او (-)

1-Which of the following of immunoglobulin unflexible:

- a_ IgG
- b_ Ig M
- c_ Ig A
- d_ Ig D

2 - gram +ve stained more easy than gram -ve because:

- gram +ve cell wall is thin while gram -ve is thicker

Hypocalcemia in patient occurs if the level of calcium is: 3_

- a_ 16
- b_ 12
- c_ 10
- d_ 7.5

4_ one test in the following can diagnose iron deficiency:

- a_ cbc

باقي الاختيارات ناسيها بس هذا متأكد هو الصح..

5_ in maximum store of the platelet is :

- a_ 35 days
- b_ 7 days
- c_ 5 days
- d_ 120

6_ the word "decontamination" what of the following meaning is true:

اعزوني ماني فلكر الاختيارات

7_ normal range of the uric acid is :

- a_ 3-7

8_ transport by blood transfusion is

- a-HIV
- b - hepatitis
- c-
- d-

e - all of the above

9_ 5. cell not have nucleus ?

- RBC

10_ infection stage in tenia saginata:

- a_ cercaria
- b_ cysticercus

11_ granulocytes cause leukemia
معناه تقريبا زي كذا والاجابه متأكد منها

- CML

11-for mean cell volume(MCV) measured:

- a_ mg/dl
- b_ fl

الاجابه هذي متأكد منها مليون في الميه.

12_ . in the bate HCG urine use:

- a- positive or negative
- b_ mmol/l

ماني فلكي باقي الاختيارات

13_ organ excrete the uric acid :

- a_liver
- b_kidney

14_ HIV or human immunodeficiency:

- 1-aids
- 2-hepatitis C
- 3-hepatitis B

15- Strong antigen:

- 1-vitamin
- 2-carbohydrate
- 3-proteins

16_ the thymocytopenia:

- 1-liver
- 2-kidney
- 3-adrenal
- 4-thymus

17_ which of the following enzymes related by the kidney:

- a_ ALP
- b_ AST
- c_ creatinin

18_ to detect antigen in agglutination used test:

- a_ soluble
- b_ insoluble

c_all of the above
d_non of the above

19_ which of the following tubes used in serology tests :

- a_ plan
- b_ EDTA

باقي فيه ثلاث اختيارات ماني فاكرهم

20_ transmitt through sexual intercourse

a_ trichomonas vaginalis

21_ which of the following bacteria can growth on chocolate agar:

a_ hemophilus influenza

22_ hormone replication of RBCs:

A_ erythropoietin

23_ Brucella Melitensis is

Obligatory aerobic bacteria a_

Obligatory anaerobic bacteria b_

Facultative anaerobic bacteria c_

d_ micro-aerophilic bacteria

24_ variation in RBCs size:

a_ microcyrosis

b_ macrocytosis

c_ aniso cytosis

25_ growth hormone secretion by:

a_ thyroid gland

b_ pituitary gland c_ adrenal gland

26_ most common method used to detect hormone:

a_ microscope

b_ flow cytometer

c_ ELISA

27_ all the following estimation can be done on plasma EDTA blood except:

a_ glucose

b_ cholesterol

c_ urea

d_ calcium

28_ lens near the slide in light microscope:

a_ objective

b_ stage

c_ eye lenses

d_ arms

29_ gas gangrene cause by :

a_ clostridium botulinum

b_ clostridium tetani

c_ clostridium perfringens

30_ Bacillary dysentery is caused by:

a- salmonella

b- shigella

c- cholera

d- all of the above

31_ the cause of plague:

a- Y-enterocolitica

b- Y-pestis c- Y pseudotuberculosis

d- non of the above

1- وحدة قياس mcv-

- p/g

- ml/ blood

- mg/dl

2- leukocyte abundant

- neutrophile

3- all of the following bacteria cell components except

- cell wall

- cell membrane

- nucleus

- cytoplasm

- pilli

4- after ensure from physical exam__ and history record we measure

- Hb c-

- Hb anti a

- Hb anti b

5- severe case may occur between mother & her fetus when mother is ... and fetus is ...

rh - & rh +

- rh- & rh

- rh+ & rh

- rh+ & rh +

6- we can diagnose w.bancrofti by investigate

- blood smear

- urine smear

- stool smear

7- Elek test use for

- neisseria

- diphtheria

- e.coli

- prodella

- proteus

8- to detect Hb we use :

ELISA

طبعا اخترت هالاختيار لانه بالعاده يستخدم بالفيروسات

9- gram +ve stained more easy than gram -ve because

- gram +ve cell wall is thin while gram -ve is thicker

10- to detect AML we use

- Sudan black

11- flask shape parasite is

giardia lamblia -بصراحه انا اخترت هذا بس مو متأكد ابد

- histolice

- malaria

12-infection of tenia by

C- coagulase

كم روابط توجد في الخلايا المضادة (antibody)؟

- a-1
- b- 2
- c- 3
- d- 4
- f- 5

IG يحتوي على اربع جزيئات

- IG M
- IG A
- IG D
- IG E
- IGG

IG يسبب HDN
IGG anti - d

عدد كريات الدم البيضاء

4000- 11000

1. urine samples culture in :-

Cleed ager انا جاوبت هذا

cleed ager and blood ager .بس كان فيه خيار حيرني هو.

2. Albert stain used to diagnoses :-

Corynebacterium diphtheria .

3. which the following produce by staph . auerus and not produce by other staph ?

Coagulas .

4. the test used to differentiate pathogenic staph ?

Coagulas test .

5. cell not have nucleus ?

RBC

6. Leukocytes normal rang ?

4000 – 11000

7. platelet store for ?

5 days .

8. platelet rang .كل معنى السؤال على ما اعتقد اني حد لعل الصفائح ؟

انا جاوبت 200 الف

anemia cause .فشي زي كذا؟

microcytic .أنا جاوبت.

10. sickle cell have

HB S .جاوب

11. RH -ve انا كل RH يعني؟

not have D-Antigen .جاوبت.

12. chaga disease caused by ?

Trypanosome cruzi .

13. malaria diagnosis by ?

Thick blood film .

14. taenia saginate diagnosis by ?

Egg in stool .

15. Ascaris lumbricoides infection stage ?

Embeyonated egg .

16. biochemistry test used sample except ?

Urine.

Whole blood

Serum

Stool

جاوبت كذا لاني ماعمرني شفت ستي بالكمستري خخ

17. transmitter through blood transfusion ?

AIDS

Malaria

Cytomegalovirus

All above .

18. leukocytes responsible for parasitic and allergic reaction ?

Eosinophile .

19. granulocytes cause leukemia ? هذا مو السؤال بس معناه ؟

جاوبت. CML

20. organ participate in billrubin ?

Liver

21. in the bate HCG urine use ?

Mmol/l

Positive or negative انا حطيت هذا لانة مكتوب بول مدري صح لو لا

22. organ excrete the uric acid ?

Kidney

23. genital disease can caused by ?

Gonorrhea and trichomonas .

24. 36- hemolytic in normocytic normochromic anemia the test used is

A- ferritin

B- transferine

بس مدري وش الأجابة

جاني سؤال مصدر الطاقة للحيوانات المنوية انا حطيت فركتوز بس ملي متأكد

جاني سؤال عن القلب حطيت كرتين كايينز

جاني سؤال التحلل ياتر على نتيجة ما عدا انا جاوبت البيلروبين بس مدري

وش الأجابة والله يوفقكم يارب

👇

The following statements are true about insulin except:

1-promots glucose uptake by muscle and fat soluble.

2-prevent glycolysis.

3-mobilizes transfer of plasma glucose from tissue to cell membrane of cells.

4-mobilizes transfer of plasma glucose from liver to other tissues. ((

5- non of above.

The majority of the glycogen in the body is stored in the:

1-muscle.

2-liver.

3-muscles and tissue.

4-heart.

5-A and B(الصحيح)

The principle determinant of body water esmolality is:

- 1-sodium concentration.((
 2-potassium concentration.
 3-chloride concentration.
 4-bicarbonate concentration.
 5-glucose concentration.

The technician should inform the physician when blood glucose level is:

- 1-60mg/dl.
 2-80mg/dl.
 3-50mg/dl.((
 4-110mg/dl.
 5-120mg/dl.

Which statement is true about chemical or latent diabetes:

- 1-the FBS exceeds 150mg/dl.
 2-the oral glucose tolerance test is normal.
 3-the 2 HR post prandial exceeds 180 mg/dl.
 4-presence of acedosis and ketosis.((
 5-presence of sugar in urine.

A severe diabetes mellitus will bring about which condition:

- 1-electrolyte imbalance.
 2-dehydration.
 3-acidosis and ketosis.
 4-all above ((
 5-non of the above.

Mycobacterium tuberculosis is called acid fast because :

- 1-its easily to stained by gram stain.
 2-once stained it cant be removed by acid.((
 3-its easily decolorized after staining.
 4-its very easy to stain .
 5-its stained by an alkaline stain.

All of the following is a test for liver function except:

- 1- bilirubin in urine.
 2- Bilirubin in serum.
 3- Excretory function test.((
 4- Enzyme test .
 5- Non of the above.

Parasite which doesn't deposit eggs in the intestine:

- 1-E.vermicularis.
 2-A.dudenale.
 3-A.lumbricoides.
 4-T.saginata.
 5-T.spirali ((
 6-انا شاكك في الاجابه))

In spectrophotometer the amount of light absorbed is:

- 1-directley proportional to the amount of light transmitted.
 2-inversly proportional to the amount of solute.

- 3-directly proportional to the concentration of the analyte.((
 4-inversly proportional to the absorbance.
 5-inversly proportional to the emitted color.

Q1: Lap result of patient is high in all the parameters these indicate:

Urea, Creatinine, Na, CL and K.

- A) High or Low Proteins
 B) High or Low Carbohydrates
 C) High or Low Lipids

Q2: One of these is not anticoagulant:

- A) Phosphate
 B) Oxalate
 C) Citrate

Q3: Insulin is used to maintain glucose and with other hormone:

- A) Growth hormone
 B) Thyroxin
 C) Glucagons

Q4: Test used for Bile Duct Obstruction:

- A) Total Bilirubin
 B) Esterad Bilirubin
 C) Urinobilirubin

Q5: One of these parameters is affected by Hemolysis:

- A) LDH
 B) AST (SGOT)
 C) K

Q6: One of these parameters used to indicate Pancreatis:

- A) ALP
 B) GGT
 C) Acid phosphatase

Q7: One of these parameters used to indicate Myocardial Infraction:

- A) CK
 B) CK-MB
 C) CK-BB

Q8: ElecSystem 2010 incubator:

- A) 30 C
 B) 37 C
 C) 35 C
 D) 40 C
 E) 50 C

Q9: Hitachi ElecSystem 2010 positions from 1 to 6 is for:

- A) Controls
 B) Emergency samples

Q10: ICIB 283 for determination of Co2 used:

- A) Serum
 B) Plasma
 C) Whole Blood

Section 2: Microbiology

Q1: The colonies of Salmonella Typhi appeared on the plate:

- A) Colorless with black centre
 B) -----
 C) -----

Q2: One of these is Oxidase Positive:

- A) Pseudomonas aeruginosa

B) -----

C) -----

Q3: Neisseria meningitis is:

A) Gram -ve Cocci

B) -----

C) -----

Q4: To differentiate between Staphylococcus and Streptococcus use:

A) Catalyze

B) -----

C) -----

Q5: Streptococcus agalactiae (Group B Streptococcus):

A) Inhibited by bacitracin

B) Against antibody A

C) -----

Q6: Error of Gram stain is:

A) Crystal violet more than 1min

B) Safranin 3min

C) Over decolorizing

Q7: MacConkey agar added crystal violet act as:

A) Indicator

B) Growth factor

C) Inhibit Enterococcus Sp

Q8: Indian Ink used to stain:

A) M. tuberculosis

B) -----

C) -----

Q9: Measles (rubeola) is:

A) Koplik's spots marker

B) Caused by paramyxovirus of the genus Morbillivirus

C) Characteristic maculopapular, erythematous

D) Laboratory diagnosis Positive measles IgM

E) Children salivary measles specific IgA

F) Hyperplastic lymph nodes (Warthin-Finkeldey cell,)

G) All othem are correct

Q10: Gram +ve with branch:

A) M. tuberculosis

B) Actinomysis israli

C) -----

Q11: Skin affected with Pus:

A) M. tuberculosis

B) M. leprosy

C) -----

Q12: Small RNA virus is:

A) Adenovirus

B) Retinavirus

C) -----

Q13: Latex virus:

A) Affinity of latex for viral antibody

B) Antigen antibody complex

C) -----

D) -----

Q14: Gram +ve Cocci in cluster will be use median sensitive (inhibited):

A) Penicillin G

B) Erythromycin

C) Vancomycin

D) Methicillin

E) Oxacillin

F) -----

Section 3: Histology & Cytology

Q1: Lymph node with central germ end is:

A) Deep cortex lymph node

B) Medulla of lymph node

C) Red pulp of spleen

D) White pulp of spleen

Q2: Satisfactory of Sputum is:

A) Present of Carbon laden

B) Few leukocytes

C) Mucoid fibre

D) Few squamous cell

E) All of the above

Q3: Satisfactory of FNA is:

A) Needle is in the centre of tumor

B) Needle penetrate the tumor

C) Needle is not close to the tumor

D) -----

Q4: Villa papilloma is affect:

A) Skin

B) Lip

C) Ureter

D) Vagina

Q5: Causes of Necrosis is:

A) Chemical Toxins

B) Heat

C) -----

D) -----

Q6: One of these is Cytology used:

A) 95 % Ethanol

B) 70 % Alcohol

C) Methanol

D) -----

Section 4: Hematology & Immunohematology

Q1: To differentiate between Hemoglobin C disease and trait by:

A) Electrophoresis

B) Ruler

C) Meter

D) -----

Q2: Many of Target Cells seen in:

A) Hb C disease

B) Aplastic Anemia

C) Autoimmune Hemolytic Anemia

D) -----

Q3: Megakaryocyte – Low Platelets seen in:

A) Aplastic Anemia

B) Pernicious Anemia

C) Thrombotic Thrombocytopenic

D) -----

Q4: PCV (HCT) / RBC count is:

A) MCV

B) MCH

C) MCHC

D) -----

Q5: 107 fL Hb with normal VitB12 and Folate is:

A) Iron Deficiency Anemia

B) Aplastic Anemia

C) VitB12 deficiency

Q6: Prothrompin Time (PT) is affected by:

A) Fibrinogen I

B) Factor VIII

C) Factor X

D) -----

Q7: Reject the sample if it:

- A) Hemolysis
- B) Not written Correct request form
- C) -----
- D) -----

Q8: To Transfer Blood not use:

- A) Heparin
- B) CIP
- C) CIA
- D) 1% sodium

Q9: Blood Donor + Patient RBC indicate:

- A) Cross-match
- B) -----
- C) -----

Section 5: Parasitology

Q1: Giardia lablia is the same of (watery stool-diarrhea):

- A) Shigella
- B) Salmonella
- C) ECT
- D) V. Cholera

In AFB staining the very first stain we use:

- 1-malachite green .
- 2-crystal violet.
- 3-carbol fuchsin.(
- 4-acrydine orange.

The reagent that we use to differentiate gram(-)and gram(+)is:

- 1-acid.
- 2-crystal violet.
- 3-alcohol.((

Hepatitis B virus is having the following nucleic acid:

- 1-DNA(
- 2-RNA.
- 3-single dsDNA.
- 4-single DS RNA.

THE most suitable biochemical reaction TSI(-)UREA(+) coliform:

- 1-klebsiella.
- 2-salmonella.((
- 3-E.coli.
- 4-shigelloa.

All the following can be done by hemocytometer except

a) RBCs

b) Semen

c) Lymphocyte

d) Total White blood cells

To fixation of thin blood film we can use

a) acetone

b) acetic acid

c) acid-alcohol

d) Not fixed

Reference range of Platelets

a) 100×10^9 (12)

b) 10×10^9 (9)

c) 10×10^9 (9)

d) 10×10^9 (9)

After collected blood on plain tube must be

a) no clot

keep on incubator (37) at 30 min

c- hemolysis

d- mix gently

Scotch-tap test used for

a- ascaris lumbricoides

b- ancylostoma duodenal

c- trichuris trichiura

d- taenia saginata

مؤكد أنني ما سمعت بالاختبار هذا

The media can grow some bacteria and inhibit another bacteria is

A- basic media

B- differential media

C- selective media

D- enriched media

Normal range of Platelets

a) 150,000 – 450,000*

b) 250,000 – 500,000

c) 150 - 400

d) 20 - 80

Viruses is

a- Can live by their own

b- Can not see by light microscope

c- can not be affected by anti-body

d- can not transmit by communicable diseases

Normal value of Lymphocyte

a) 55 %

b) 25 %

c) 70 %

d) 10 %

Which of the following of immunoglobulin have five molecules of heavy and light

هذا السؤال حيرني كثير

a_ IgG

b_ Ig D

c_ Ig A

d_ IgE

We can differentiate gram -ve bacteria and +ve bacteria differentiated by

a) capsule

b) cytoplasm

d) cell wall

antigen In O Positive person

a) No presence of Ab

b) No presence of Ag*

c) No Presence of Ab and Ag

In which normal presence appear in urine analysis

a) Protein

b) Bilirubin

c) Chloride

d) Glucose

Rh negative patient means he does not have

a) E antigen

b) D antigen

c) B antigen

- d) C antigen
- e) Non of the above

In O blood group the Ab in serum is

- a) Anti A and B**
- b) Anti A
- c) Anti B
- d) Non of the above
- e) All of the above

it's one of the tape worms

- :
- a- ascaris lumbricoides
- b- ancylostoma duodenal
- c- trichuris tricura
- d- taenia saginata

All following stained by gimsa stain except

- a) Malaria
- b) Leishmania
- c) Schistosoma
- d) trypanosoma

. Taenia saginate diagnosis by

A) Egg in stool

- b) larvae
- C) oocyst

The unit used in MCV

- A) p/g
- b) ml/ blood
- C) mg/dl
- C) -fl

Normal range of MCV

- a) 25-60 fl
- b) 75-85 fl
- c) 75-96 fl

Infective stage of Entrobis Vermicularis is

- :
- 1- Larva
- 2- Cercaria
- 3- Egg

- 4- Cyst
- 5- Metacercaria

Immune system can called Adaptive system or

- 1- Lymphocyte system
- 2- Acquired system
- 3- Lymphocyte-immune system

One is not true about acid:

- 1- Proton donor
- 2- Turn litmus paper to blue
- 3- Sour taste
- 4- React with alkaline to give water and salt

Most common method (technique) used to detect hormone amount in the laboratories

- :
- 1- Spectrophotometry
- 2- Enzyme Linked Immuno Surbant Assay (ELIZA)

Strong antigen

- 1- vitamin
- 2- carbohydrate
- 3- proteins

the Elisa sensitive to light

- :
- 1- conjugate only
- 2- substrate only
- 3- conjugate and substrate

ESR mesure

قطب

- 1- millimeters
- 2- centimeter
- 3- miligram

taenia saginate transmission

- :
- 1- ingestion beef
- 2- ingestion pork

Gram positive chain

- 1- streptococci
- 2- staphylococci
- 3- gonococci
- 4- meningococci

one is gram-motile rod earobic and oxidase possitive

E.coli

proteus

Pseudomonas

- gonadotropic hormone

LH

25- Normal prothrombin time (PT) is:

a- 30-45 seconds

b- 30-45 minutes

d- 12-15 minutes

c : 13+-2 seconds

بالموجب والسالب يعني ممكن تزيد عن 2 وممكن تنقص

organism can live and effect urinary tract or vagina

a- toxoplasma

b- giardia lamblia

c- Trichomonas vaginalis

d- all of the above

2-lukoocyte count become < 4000 in:-

a-bacteria infection

b- inflammation

c- malignant

c- non above

In blood group use:-

a-know cell with unknown serum

b- unknown cell with known serum

c-know cell with unknown cell

chinese litter see in :-

a- C.diftteria b-..... C-.....

Antigen and Anti-body can bind on

AG on RBCs and Ab on plasma

E-coli

a) motile

b) indole +ve

c) lactose fermentative

d) produce gas and acid

e) all above

the result at added by 2 dilution on 6 tube <

أتوقع صيغة السؤال زي كذا و إجابة السؤال ماني متأكد منها

a) 125

b) 132

c) 164

d) 225

(1)

طبعاً علامة صح صححيه اكيد <<
صح ونجمه [تقريباً] او بالأزرق
لأن فيها اخطاء وصحة بعضها <<

1) The definitive host is an animal:

1-Entamoeba histolitica

2-√ Toxoplasma Gondii

3-Trypanosoma cruzi

4-E.coli

5- Giardia lamblia

2) One is not found (involve) in colorimetric:

1- Cuvett

2-light source

3- Photo sensor and analyzer

4-√*fule source

5-Filter

3) The smallest molecular weight Ig is:

1-√ IgG

2-IgM

3-IgD

4-IgE

5-IgA

4) Bacteria can cause pathogenesis to human

by:

1-Capsular

2-Secret enzymes

3-Endogenous toxins

4-Exogenous toxins

5-√ All of the above

5) Neutrophil count is high in:

1√*-Acute bacterial infection

2- Iron deficiency anemia

3-Megaloblastic anemia

6) One is not correctly paired:

1- α- cells→ glucagon

2- β- cells → insulin

3- Parathyroid → calcium

4- Corpus luteum → Progesterone

5- √ Estrogen → seminiferous tubules

7) Function of pili of the bacteria:

1-√ Attachment to the host tissue

2- Movement

3- Reproduction (multiplication)

4- Engulf of food

5- All of the above

8) Hb A2 is consisting of:

1- 3 α chains and 2 γ chains

2- 2 α chains and 2 β chains

3- √ 2 α chains and 2 δ chains

4- 2 α chains and 3 δ chains

5- 3 α chains and 2 δ chains

9) The main (most) Hb found in adult is:

1- √ Hb A

2- Hb A2

3- Hb F

10) Blood medium commonly used in blood bank:

1- √* Citrate Phosphate Dextrose adenine (CPD-A)

2- EDTA anticoagulant

3- Heparin anticoagulant

4- Saline alanin glucose maltose (SAGM)

11) Indirect anti-antibody test used to detect:

1- Sensitized RBCs in patient blood

2- IgG

3- IgM

4- √ Sensitized antibody in patient serum

5- Non of the above

12) Direct anti-antibody test used to detect:

1-√ Sensitized RBCs in patient blood

2- IgG

3- IgM

4- Sensitized antibody in patient serum

5- Non of the above

13) Anti-Human Immunoglobulin is:

1- Coombs reagent

2- Anti-Ab

3- IgG

4- √ All of the above

5- Non of the above

14) Rh-ve patient means he dose not have:

1- E antigen

2- √ D antigen

3- B antigen

4- C antigen

5- Non of the above

15) Detection of malaria parasite is by:

√ 1- Thick blood film

16) One is always non motile gram –ve rods:

1-Haemophilus Influenza

✓ 2-Shigella

3- E.coli

4- Salmonella

5- Bordetella Pertusis

17) One is motile gram –ve rods:

1- Haemophilus Influenza

2- Bacillus anthracis

3- Pseudomonas aerogenes

✓*4- Vibrio cholerae

5- Yersinia Pestis

18) One is gram +ve oval (cocci):

1- Bacillus anthracis

2- Meningococci

✓*3- Pneumococci

19) A child diagnosis show scarlet fever the cause is:

✓ 1- Streptococcus Pyogenes

2- Staphylococci aureus

20) Xylose lysine Deoxycholate (XLD) is:

1- Selective media

2- Simple media

✓ 3- Differential media

4- Enriched media

6- Enrichment

21) Function of Thyroxin is:

1- Increase Oogenesis

2- Stimulate contraction of uterus

✓ 3- Increase basal metabolic

22) Increase in Thyroxin Stimulating Hormone (TSH) causes:

1- Cushing disease

2- Gigantism

2- Exophthalmic goiter

3- Hypoglycemia

23) Function of Estrogen:

✓ 1- Increase Oogenesis

2- Stimulate contraction of uterus

3- Increase basal metabolic

24) Infective stage of Entrobium Vermicularis is:

1- Larva

2- Cercaria

✓ 3- Egg

4- Cyst

5- Metacercaria

25) Infective stage of Taenia:

1- Larva

2- Cercaria

✓ 3- Embryonated egg

4- Cyst

6- Metacercaria

26) Autoinfection of human can caused in case of:

✓ 1- Entrobium Vermicularis

2- Taenia Sp.

3- Anclystoma Dudenal

5- Ascaris Lumbercoidis

27) The leukocyte that involve in Adaptive and Acquired immunity:

✓ 1- Lymphocyte

2- Neutrophil

3- Monocyte

4- Basophile

5- Eosinophil

28) The atomic mass of an atom is the number of:

✓ 1- Protons and neutrons

2- Protons only

3- Neutrons only

4- Electrons

5- Non of the above

29) In case of obstructive jaundice one is commonly not found:

1- Total bilirubin is elevated

2- High bilirubin in urine

✓ 3- Direct bilirubin is within the normal

4- Dark color of urine

5- Clay color of stool

30) In case of Hemolytic jaundice one is not likely to be found:

1- Total bilirubin is elevated

✓ 2- High bilirubin in urine

3- No change in color of urine

4- Direct bilirubin is within the normal

5- Normal color of stool

31) One is not true about acid:

1- Proton donor

2- ✓ Turn litmus paper to blue

3- Sour taste

4- React with alkaline to give water and salt

5- None of the above

32) Pentose phosphate metabolism cycle is important to the cell because it gives:

1- Acetyl CoA

2- ADP

3- ATP

4- NADH

5- ✓* NADPH

33) Hydrolysis of sucrose results:

1- Only glucose

2- Galactose

3- ✓ Fructose + glucose

4- Glucose + Glucose

5- Maltose + Glucose

34) One is not a Romanowsky stain:

1- Fields stain

2- ✓ Gram stain

3- Geimsa stain

4- Leishman stain

35) Romanowsky stain consists of:

1- ✓ Eosin + Alkaline methylene blue

2- Eosin only

3- Methylene blue only

4- Indian Ink

36) Deionization of impure water means:

1- Boiling

2- Filtration

3- ✓ Exchange of protons and electrons

37) Iodine stain of Entamoeba cyst used to detect (diagnose):

1- Chromatoidal bars

2- Cell wall

3- ✓* Nuclei

38) Hb A consists of:

1- 2 α chains and 2 δ chains

2- 3 α chains and 2 β chains

3- ✓ 2 α chains and 2 β chains

4- 2 α chains and 3 β chains

5- 2 α chains and 2 γ chains

39) Normal range of leukocyte is:

1- ✓ $4-11 \times 10^9$

40) Diagnostic stage of Ascaris lumbricoides:

1- ✓ Finding of a typical fertilized egg in stool

41) Life span of red blood cells in the circulation (body):

1- 80 days

2- ✓ 120 day

3- 130 day

4- 20 day

5- 7 days

42) Increase in growth hormone causes:

1- Cushing disease

2- ✓ Gigantism

3- Exophthalmic goiter

4- Hypoglycemia

43) If you see this sign (symbol) in the lab it means:

1- Flammable

2- ✓ Corrosive

3- Oxidizing

4- Explosive

5- Toxic

44) Reticulocyte is immature:

1- ✓ RBC

2- WBC

4- Platelet



45) Best sterilization of Nutrient media done by:

1- Hot air oven

2- ✓ Autoclaving

46) Most common method (technique) used to detect hormone amount in the laboratories:

1- Spectrophotometry

2- ✓ Enzyme Linked Immunosorbent Assay (ELISA)

47) Test should be kept away from light:

1- ✓ Serum bilirubin

48) Immunoglobulin pregnancy test related to:

1- ✓* IgG

2- IgM

3- Human chorionic Gonadotropin

49) Leukocyte responsible for cellular immunity:

- 1- ✓ **T-lymphocyte**
- 2- B- lymphocyte
- 3- Monocyte
- 4- Basophile
- 5- Eosinophil

50) Buffer solution is:

- 1- Chaing color when chaing pH
- 2- Resist acidic pH
- 3- Resist alkaline pH
- 4- **Weak acid + weak base**
- 5- Strong acid + weak base

51) An indicator is:

- 1-✓ **Chaing color with chaing pH**
- 2- Resist acidic pH
- 3- Resist alkaline pH
- 4- Weak acid + weak base
- 5- Strong acid + weak base

52) Target of prolactin in female:

- 1- Ovary
- 2- ✓ **Mammary glands**

53) Parasite can be detected in vaginal and urethral discharge:

- 1- ✓ **Trichomonas Vaginalis**

54) Org. (bacteria) arranged in Chinese litters:

- 1- ✓ **Corynebacteria Diphtheria**
- 2- Bacillus anthraces

55) Malaria infection transmitted by:

- 1- Male anopheles mosquito
- 2- ✓ **Female anopheles mosquito**

56) Heparin is:

- 1-✓ **Protein**
- 2- Enzyme
- 3- Polysaccharide
- 4- Oligosaccharide
- 5- Non of the above

57) One stage prothrombin time used to detect (diagnose) disorders in:

- 1-✓ **Extrinsic coagulation pathway (factors)**
- 2- Intrinsic coagulation pathway (factors)

58) Thrombin time is:

- 1- Extrinsic coagulation pathway (factors)
- 2- Intrinsic coagulation pathway (factors)
- 3- ✓ **The conversion of prothrombin to fibrinogen in addition of thrombin**

59) Confirmatory test of streptococcus pneumonia:

- 1- Catalase
- 2- Optochine disc
- 3- Coagulase
- 4- ✓* **Bile insolubility**
- 6- Bacitracin

60) Most sever (serious) malaria infection caused by:

- 1- ✓ **Plasmodium Falcibarum**
- 2- Plasmodium Malaria
- 3- Plasmodium Ovale
- 4- Plasmodium Vivax
- 5- All of the above

61) Parasite can cause fetal cerebral infection:

- 1- Taenia
- 2- ✓ **Toxoplasma gondii**

62) Gram +ve cocci arranged in groups (clusters):

- 1- Streptococci
- 2- ✓ **Staphylococci**

63) Non motile protozoa:

- 1- E.coli
- 2- Entamoeba Histolytica
- 3- Trypanosoma cruzi
- 4- ✓* **Giardia lamblia**
- 5- Trichomonas vaginalis

64) One is always oxidase +ve

- 1- Haemophilus Influenza
- 2- ✓ **Pseudomonas aurogenase**

65) Leukocyte responsible for response to parasitic and allergic infection:

- 1- Lymphocyte
- 2- Nutrophile
- 3- Monocyte
- 4- Basophile
- 5-✓ **Eosinophil**

(2)

1-Blood of Microfilaria infection

diagnostic with:

✓ **Wuchereria bancrofti**

2-Oocyst benefited to diagnose:

E.histolytica

E.coli

✓ **Toxoplasma gondii**

Giaradia lamblia

Typanosoma cruzi

3-intracellular parasite:

E.coli

Toxoplasma gondii

Giaradia lamblia

Typanosoma cruzi

✓ **Trichomonas vaginalis**

4- An animal is a definitive host:

E.histolytica

E.coli

✓ **Toxoplasma gondii**

Giaradia lamblia

Typanosoma cruzi

5-cosnider ketose:

Glucose

✓ **Fructose**

Mannose

6- non motile protozoa:

E.histolytica

E.coli

✓ **Toxoplasma gondii**

Giaradia lamblia

Typanosoma cruzi

7-cutaneous leishmaniasis transmitted

by:

✓ **Phlebotomus sand fly**

8-malaria transmitted by :

✓ **Female anopheline mosquito**

Male anopheline mosquito

9- shistosoma hematobium diagnosis:

✓ **Egg in urine with terminal spine**

10-not find in the flam photometry :

Burner

Filter

Fuel source

Cuvete for sample

Photo

11-low effective sterilization with:

Ethyl alcohol 70%

Methyl alcohol

chloroform

5%phenol

5% cresol

12-prolonged fast cause:

Hyperglycemia

✓ **Keton in urine**

13-One is not correctly paired :

α - cells → glucagon

β - cells → insulin

✓ **Estrogen → seminiferous tubules**

Corpus luteum → Progesterone

Parathyroid → calcium

14- bacteria motile gram-rods:

Shigella

Bordetella pertusis

✓ **Pseudomonas aeruginosa**

Yersinia pestis

15-presence one from this substance in urine detect abnormal codition;

Calcium

Phosphates

✓ **Glucose**

Urates

16-hypersecretion of cortisol cuase:

✓ **Cushing disease**

17-in cardiac infraction one of the measurements is not benefited:

✓ **Creatinine**

18-elevated in parasitic infection and allergy :

✓ **IgE**

19- with romanowsky stain ,2-5 lobes and give violet or pinkish granules:

✓ **Nutrophile**

Eiosinophile

Basophile

Monocyte

20-lense near the slid in light microscope

:

✓ **Objective**

Eye lenses

21-one of the following has highest conc. Of cholesterol:

Chylomicron

LDL

HDL

VLDL

Apolipoprotein

22-hypersecretion of insulin cause:

✓ **Hypoglycemia**

23-hyperglycemia hormone

✓ **Glucagon**

24- B-lymphocyte after attack foreign bodies ,called

✓ **Plasma cell**

25- technique used for detect Hormon amount:

✓ **ELIZA**

26-does not sterile with hot air oven:

Dry glassware

Oil

Powder

Waxes

Rubber gloves

27-lymphocyte is elevated in :

✓ **Viral infection**

Acute bacterial infection

Iron deficiency anemia

Megaloblastic anemia

non of the above

28- The smallest molecular weight Ig is:

✓ **1-IgG**

2-IgM

3-IgD

4-IgE

29-gram-v bacteria colonies color :

Dark purple

✓ **Pale to dark red**

Orange

30- bacteria need dark field to detect

✓ **T.pallidum**

31-Autoclave sterilize in temp:

✓ **121°C-20min**

32-strict aerobe bacteria

✓ **Mycobacterium**

33-citrate test assis :

Mycobacterias

Staph

Strept

Colistridia sp

34-nutrent agar:

✓ **Basic media**

35- hypoparathyrodism hormone cause:

Elevated ca level

✓ **Decrease ca level**

36-use O cell tube on lab for:

✓ **As control**

To detect Ag

To detect Ab

37-all cause false -v ABO blood grouping except

✓ **Too short incubation**

38-prothrompin time detect:

✓ **Extrinsic pathway of coagulation**

39-alkali skin burn treatment by neutralization with:

Sodium bicarbonate powder

Boric acid

Acetic acid 1%

✓ **Cold water**

Hot water

40-acid skin burn treatment by neutralization with:

Sodium bicarbonate powder

Boric acid

Acetic acid 1%

✓ **Cold water**

Hot water

41-store RBC at -80°C:

✓ **1year**

1month

4 year

2 year

6year

42-deffenetial test for:

✓ **Leukocyte**

43- disease caused by pyogen

stereptococcus:

✓ **Scarlet fever.**

44- you do not take this stage for tratment small cut In emergency :

Clean with soap and water

Do pressure with piece

Immediately rinse mouth well and water

Cover it with water dressing

Sterilize

45- org cause bloody in stool:

✓ **Shigella sp.**

46-sensitized Ab in serum detect by:

✓ **Indirect antiglublin test**

47-thrombin time measure:

✓ **Convert fibrinogen to fibrin with activate of thrombin**

48- in presence of clotting defect one of this not measure:

✓ Leucocyte count

49-in Rh-v person , this Ag not found :

✓ D-antigen

50-Z.N stain use for diagnose :

✓ Mycobacteria

51-media use for differentiate between L.F and N.L.F:

✓ Maconky media

52-bleeding time test detect the abnormality in :

✓ Defect in vessels and platelets

53- Immature RBC that is normally presence in blood film:

✓ Erythrocyte

54- erythrocyte is immature cell of:

✓ RBC

55-S hemoglobin is the same defect of thalassemia but the different is :

Long B chain

✓ Glutamic acid on B chain is substituted with valine

Glutamic acid on a chain is substitutes with valine

56- hormone that cause replication of RBC:

✓ Erythropoietin

57- use for clean slide:

Ethyle alcohol

Methyle alcohol

58-oxytocine hormone function:

✓ Contribution of Uterus

59-regulation of calcium level in serum by:

Calcitonine hormone only

Parathyroid hormone only

✓ Calcitonine with parathyroid hormone

Vitamin D

PTH+Vitamin D+calcitonin

60-the defect of thalassemia occur in:

Cycle of heme

✓ Globin chain

61-Normal range of WBCs:

✓ 4000_11000

62-stain use for tuberculosis:

✓ Lewis Jensen stain

63- pyrimidin base:

Adenine

Guanine

✓ Thymine

Uric acid

Urea

64- one use for measure abnormality in kidney :

✓ Creatinine

65- not romanowsky stain :

✓ Gram stain

66-does not stimulate with slight hemolysis:

✓ Cholesterol

67-one of them use for susceptible abnormality kidney:

✓ Creatinin

68- in O+v person

✓No presence of Ag

✓No presence of Ab

69-one is stimulate on serum calcium level:

✓Prolonged application of tourniquet on arm

70-Eiosinphil is high in :

✓Parasitic infection and allergic reaction.

By : Danotti

لا تنسوني من دعواتكم ..
جزاكم

(3)

1.the infective stage of animal parasite

- √ **Toxoplasma gondii**

2.the (u) unit used to evaluation of :

- Protein in serum
- Hemoglobin
- Hormone assay
- √ **Enzymatic activity**

3.the following is ingredient of culture medium:

- Meat extract
- Minral salts
- Agar
- Peptone
- Non of the above
- √ **All of the above**

4.a semen specimen, contain sugar source of the spermatozoa energy is:

- Glucose
- Mannose
- Glactose
- √ **Fructose**
- Sucrose

5.CPD A anticoagulant used to store blood for:

- √ **35 days**
- 45 days
- 5 days
- 15 days
- Non of the above

6.During reaction of two chemical substances , the color produced asses by

- √ **Spectrophotometer**
- Flame photometer

7.glycolysis done in :

- Nucleus
- Endoplasmic reticulum
- √ **Mitochondrion**
- Cytoplasm
- Non of the above

8.one of the above not present in Diabetic mellitus coma :

- Hyperglycemia
- √ **Hypercholesterolemia**
- High number of ketene in urine
- Non of the above

9.in which substance give blood glucose when hydrolysis :

- Muscle glycogen

- Liver glycogen
- Heart glycogen
- Unsaturated fat
- √* **Triglyceride**

10.in Anti human globulin test do wash of RBC because all serum contain :

- Albumin
- a_globulin
- b_ globulin
- fibrinogen
- √ **Immunoglobulin**

11. the most source of ATP in cell is :

- √* **Mitochondria**
- Cytoplasm
- Nucleus
- Cell wall

12 . H Ag present in :

- Pili
- Capsule
- √ **Flagella**
- Cell membrane

13. urea is final product of catabolism of:

- √ **amino acid**
- triglyceride
- cholesterol
- polysaccharide

14.Which of White blood cell give immunoglobulin :

- √ **lymphocyte**
- Neutrophil
- Basophile
- Monocyte
- Eosinophil

15.Blood of Microfilaria infection diagnosis with :

- √ **Wucheria bancrofti**

16.one of the immunoglobulin present in trace amount in serum :

- IgG
- IgE
- √* **IgM**
- IgD
- IgA

17.gram - ve bacteria colonies color appear :

- Dark purple
- √ **Pale to dark red**
- Orange

18. alkali burn treatment by neutralization with :

- Sodium bicarbonate powder
- Boric acid

- ✓ Acetic Acid

- Cold water
- Hot water

19.reason of false positive ABO in compatibility:

- ✓ Cold agglutination

20. selective and Differential medium of entero pathogen is:

- Chocolate agar
- Blood agar
- ✓ DCA medium
- Meat extract agar
- Non of the above

21.in O blood group the Ab in serum is :

- Anti A₁B
- Anti A
- Anti B
- Non of the above
- ✓ All of the above

22.Neutrophil is acommon White blood cell present in blood and the percentage of presence is :

- 90%
- 15%
- ✓ 75%

23.The leukocyte that involve in Adaptive and Acquired immunity

- ✓ Lymphocyte
- Monocyte
- Neutrophil
- Basophil
- Eosinophil

24. one of these is prokaryotic cell:

- Fungi
- Bacteria
- Entameba histolytica
- All of the above
- ✓ Non of the above

25.Most sever (serious) malaria infection caused by:

- ✓ Plasmodium falciparum
- Plasmodium Malaria
- Plasmodium Ovale
- Plasmodium Vivax
- All of the above

26.To detect pH from solution use :

- pH meter
- ✓ Indicator

- Micrometer

27. one of these organism multiply intracellular parasite:

- Gardia lamblia
- Entameba histolytica
- E. coli
- Trypanosoma Cruzi
- ✓ Toxoplasma gondii

28.gram-ve rod non motile :

- Salmonella
- Yersini pestis
- ✓ Shigella species
- Vibrio cholerae

29. Leukocyte responsible for cellular immunity:

- ✓ T_ lymphocyte
- B- lymphocyte
- Monocyte
- Basophile
- Eosinophil

30.one of these org gram +ve cocci arranged in pairs :

- Staphylococci
- Streptococci
- Meningococci
- ✓ enterococci

31. One is not a Romanowsky stain

- Fields stain
- ✓ Gram stain
- Geimsa stain
- Leishman stain

32. Hydrolysis of sucrose result:

- Only glucose
- Galactose
- ✓ Fructose + glucose
- Glucose + Glucose
- Maltose + Glucose

32.method used to detect hormone in the laboratory :

- ✓ ELIZA

33. one of the following has highest conc. Of cholesterol:

- Chylomicron
- LDL
- ✓*HDL
- VLDL
- Apolipoprotein

34. oxytocine hormone function :

- Increase Oogenesis

- ✓ Stimulate contraction of uterus
- Increase basal metabolic

35. Iodine stain of Entamoeba cyst used to detect (diagnose):

- Chromatoidal bars
- Cell wall
- ✓ Nuclei

36. function of Cortisol :

- Increase Oogenesis
- Stimulate contraction of uterus
- ✓ Increase basal metabolic

37.infective stage of Ascaris lumbricoides :

- Larva
- Cercaria
- ✓ Egg
- Cyst
- Metacercaria

38.substance used in catalyse reaction :

- ✓ H_2O_2

39. Normal range of erythrocyte

4,5- 6,5X 10⁹✓ -

40.one of these leukocyte have 2 5 lobes in nucleus :

- ✓ Neutrophil
- Basophil
- Monocyte
- Lymphocyte
- Eosinophil

41. one of these cell the largest leukocyte cell:

- Neutrophil
- Basophil
- ✓ Monocyte
- Lymphocyte
- Eosinophil

42.Alkline phosphates is the important enzyme to detect function in :

- Liver
- Bone
- ✓ Liver and bone
- Non of the above

43.one of the following anticoagulant used for blood glucose :

- EDTA
- Heparin
- ✓ *Sodium oxalate
- Florida Oxalate
- Sodium citrate

44.AST important enzyme to detect abnormality in:

- Liver disease
- Heart disease
- ✓ Liver and heart disease

- Non of the above

45. the defect of thalassemia occur in:

- Cycle of heme
- ✓ Glubin chain

46 This Symbol means, when you see in laboratory :

- acute flammable
- ✓ Toxic
- Corrosive
- Explosive

By : Danotti

لا تنسوا من دعواتكم ..

جزاكم الله خير

Choose the correct answer:

(1) the best anti coagulant in blood culture is

- *sodium oxalate
- *sodium citrates
- sodium sulphate✓*

(2) all the following samples are stained using gram stain except?

- *water culture
- *sputum
- stool✓*

(3) the percentage of sodium chloride in agar culture is?

- *0.058%
- *58.0%
- 0.58%✓*

(4) agar is characterized by all the following except?

- *freezing point is 42c & melting point is 100c
- *nutritive
- un-nutritive✓*

(5) the normal value of (Na) in serum is?

- *135-145 mg/dl
- *135-145 mmol/dl
- 135-145 mmol/l✓*

(6) gram stain starts with?

- *iodine
- *crystal green
- methyl violet ✓*

(7) the causative of toxoplasma is?

- *flees
- *dogs
- *cats✓

(8) gram negative samples are stained with?

- *yellow color
- *blue color
- *red colonies

✓

(9) the color of cholera when cultured on TCBS?

- *blue
- *green
- yellow✓*

(10) the diameter of micro pore filter used in bacteria filtration is?

- *0.033microns
- *2.2microns
- .22microns✓*

(11) leishmania is transported by?

- *mosquitoes
- *pugs
- sand fly✓*

(12) to investigate one sample containing flo- carbon we use which microscope?

*light microscope

*brilliant microscope

fluorescent microscope✓*

(13) virus is similar to live organisms in?

- *growth
- *movement

reproduction✓*

(14) the largest resolution of the microscope is?

- *0.02microns
- *2.0microns

0.2microns✓*

(15) which of the following is liver function test?

- *liver enzymes
- *serum + urin billrubin

all of the previous✓*

(16) which of the following causing enlargement of RBCs?

- *reticulocytes
- *leishmania

plasmodium✓*

(17) the best sample for the culture of children paralysis virus is?

- *anal swab
- *blood culture
- *stool culture✓

(18) dry air oven is used to sterilize?

- *water
- *culture media
- ✓*sand

(19) the diabetic patient is going to comma when blood glucose is?

- *120 mg/dl
- *160 mg/dl

✓*less than 50mg/dl

(20) to differentiate between the two streptococci group which enzyme is used?

- *coagulase
- *kinase

✓*catalase

(21) the microscope which used in investigate syphilis is?

- *light microscope
- *ultra-violet microscope
- *dark field microscope✓

(22) the antibiotic disc which differentiate between group A streptococci and other groups is?

- *neomycin
- *tetracycline
- *bacitracin✓

(23) all of the following is true for salmonella except?

- *motile
- *produces H₂S
- *oxidase positive✓
- (24) amylase value is high in the following disease?
- *salivary glands
- *pancreas diseases
- ✓*all of the previous

(25) one jaundice patient has yellow skin, his billrubin is:

- *2.5mg/dl
- *1.2mg/dl
- *5.0mg/dl✓

(26) acute diabetic patient has?

- *blood sugar more than 150mg/dl
- *blood sugar more than 180mg/dl
- *glucose & acetone in urin✓

(27) the normal value of billrubin is?

- *0.2-2.0mg/dl
- *less than 2.0mg/dl
- ✓*less than 1.0mg/dl

(28) diabetic patient has one of the following symptoms?

- *acidosis
- *alkalosis
- ✓*dryness

(29) insulin is regulating blood sugar by?

- *increase the influx of glucose into cells
- *activate glycogenesis
- ✓*all the previous

(30) the nutritive substance in culture media is?

- *sugar
- *starch
- ✓*agar

(31) the best media for urin culture is?

- *blood agar
- *chocolate agar
- ✓*cled agar

(32) the sterilization of autoclave is?

- *85c for 30min
- *150c for 30min
- ✓*121c for 15min

(33) shigella soni colored in maconkey & EMB?

- *colorless
- *red

*pink✓

(34) the oil emertion lens is

- *10
- *40
- *100

(35) the dwarf worm is?

- *schistosoma
- *tenia saginata
- ✓*H.nana

(36) all of the following are present in gram stain except?

- *safranine
- *iodine
- ✓*malachite green

(37) the diagnostic stage of amoeba is?

- *cyst
- *trophozoite
- ✓*all previous

(38) to check the intestinal efficacy the following test is done?

- *pepsin
- *lipase
- ✓*stool fats

(39) the worm that causes blood in urin?

- *ascaris
- *fasciola
- ✓*schistosoma haematobium

(40) the significant count of bacteria to be inflammation is?

- *less than 10^5
- *more than 10^3
- ✓*more than 10^5

(41) to investigate gram stained samples we use the following microscope?

- *double phase microscope
- *florescent microscope
- *light microscope✓

(42) the most important buffer system in blood is?

- *acetic acid system
- *hemoglobin system
- ✓*bicarbonates system

(43) all the following bacteria are interobacter except?

- *E.coli
- *proteus
- ✓*non of the previous

(44) in the microscope when using objective lens 10 & eye lens 10 thee magnification power of the microscope is?

- *10

*1000

✓*100

(45) all the following parameters affecting gram staining except?

*use H₂SO₄

*add absolute alcohol after washing

✓*delaying the dryness of the slide

(46) glycogen is stored in?

*liver

*muscles

✓*all the previous

(47) malaria chizonts are present in?

*reticulo-endothelial

*leukocyte

✓*RBCs

(48) comma of diabetic patient shows?

*glucose grater than 200mg/dl

*glucose less than 200mg/dl

✓*glucose grater than 500mg/dl

(49) blood donor selection in KSA are all of the following except?

*Hb% 12.5-16

*free from syphilis

✓*one year after delivery

(50) solidifying agent in culture media is?

*wax

*starch

✓*agar

(51) agar which used as a solidifying agent in culture media concentration is?

*5-9%

*4-9%

✓*1-2%

(52) to sterilize culture media we use?

*boiling

*hot oven

✓*autoclave

(53) bone matrix can also called?

*vascular tissue

*fibrous tissue

✓*osteon

(54) unidirectional movement of WBCs directly to its target is?

*sliding

*phagocytes

✓*chemo taxis

(55) when focusing a stained smear under oil immersion field the magnification is?

*10

*40

✓*100

(56) in myocardial infection?

*level of LHD high

*level of GOT high

✓*level of CK-MB high

(57) variation in RBCs size?

*microcytosis

*macrocytosis

✓*aniso cytosis

(58) pretransfusion test that is performed using the patient red cells and donor plasma?

*Anti body screen

*major x-matching

✓*minor x-matching

(59) serum LDH is elevated in all the following except?

*skeletal disease

*cardiac/ hepatic diseases

✓*renal disease

(60) elevated sodium & chloride is seen in?

*shock

*diabetic acidosis

✓*severe dehydration

(61) which test is better to diagnose chronic bile duct?

*total bilirubin

*S-GOT

✓*ALP

(62) generally diagnosed by recovery & identification of typical larva in stool?

*hook worms

*t.trichura

✓*s.stercoralis

(63) enlarged RBCs are common in?

*p.malaria

*p.falciparum

✓*p.vivax

(64) which of the following is not laying eggs in small intestine?

*hook worm

*t.saginata

✓*pin worm

(65) blood sample is used to diagnose?

*C.tetani

*C.diphtheria

✓*non from them

(66) how much water should we add to 500ml of a solution of 10% of NaOH to bring it to 7.5%?

*666

*250

✓*166

(67) while using the pregnancy test we are measuring?

*total HCG

*beta HCG & LH

✓*beta HCG

(68) with age the renal threshold for glucose?

*increase

*decrease

✓*does not change

(69) calibrator sera are?

*secondary standards

*internal standards

✓*primary standards

(70) a buffer made of?

*a strong acid + a strong salt

*a weak acid + a weak salt

✓*a weak acid + a strong salt

(71) a standard micro plates in ELISA test has?

*98 wells

*94 wells

✓*96 wells

(72) the enzyme in ELISA testing is present in the?

*buffer

*micro plate

✓*conjugate

(73) antigen antibody complex are?

*weakly bound

*no bounds

*strongly bound✓

(74) washing must be done in all heterogeneous ELISA technique because?

*increase the specificity

*increase the sensitivity

✓*it removes the excess binding

(75) the label in ELISA tests is?

*radio active substance

*antibody

✓*enzyme

(76) the difference between plasma & serum is that plasma?

*does not contain fibrinogen

*has more water

✓*contains fibrinogen

(77) five ml of colored solution has an absorbance of .500nm

The absorbance of 10ml of the same solution is?

*1.000nm

*0.250nm

✓*0.500nm

(78) plasma or serum should be separated at the earliest time for estimation of glucose because?

*glucose value increases with time

*lyses of blood will occur

✓*glucose value decreases with time

(79) sensitivity & specificity are?

*directly related

*they mean the same

✓*non of above

(80) a dichromatic analysis is carried to increase?

*linearity

*specify

✓*sensitivity

(81) causes of high serum bilirubin are?

*overload on liver

*haemolysis

✓*all of the previous

(82) polio myelitis is transmitted through?

*skin

*respiration

✓*feco-oral

(83) malaria does not grow in?

*EDTA blood

*heparin zed blood

✓*plasma

(84) serious that causes food poisoning?

*staph albus

*salmonella typhi

✓*salmonella enteritidis

(85) hemophilia man married to normal woman the incidence of his children is?

*carrier male

*diseased female

*carrier female✓

(86) which of the following causes UTI & INDOL positive?

*klebsiella

*staphylococci

*E.coli✓

(87) blood transfusion can transmit?

*HIV

*CMV

✓*all of the previous

(88) ADH is secreted from?

*thyroid gland

*anterior pituitary

✓*posterior pituitary

(89) one of the following enzymes is effected by

hemolysis?

*SGOT

*SGPT

✓*LDH

(90) HbA1C of diabetic patient is important for?

*he has to come fasting

*short term follow up

✓*long term follow up

(91) for glucose tolerance test?

*collect 5 blood samples only

*collect 5 urin samples only

✓*collect 5 blood samples + 5 urin samples

(92) one of the following heart enzymes is measured after 4-8hr of chest pain?

*GOT

*LDH

✓*CPK

(93) light effects one of the following?

*glucose

*urea

✓*billrubin

(94) one of the following is specific diagnostic liver enzyme?

*GOT

*LDH

✓*GPT

(95) one of the following is important before anesthesia?

*alkaline phosphates

*acidic phosphates

✓*pseudocholeline esterase

(96) acid phosphates is?

*heart enzyme

*liver enzyme

✓*prostatic enzyme

(97) In uric acid estimation?

*its affected by carbohydrate meal

*no need for fasting

✓*the patient has to come fasting

(98) all of the following are affected by meal except?

*glucose

*albumin

✓*creatinine

(99) Na is the main?

*intra cellular anion

*intra cellular cation

✓*extra cellular cation

(100) one of the following electrolytes is effected by hemolysis?

*Ca

*Mg

✓*k

(101) the best kidney function test?

*urea

*total protein

✓*creatinine clearance

(102) for GGT in adults the dose of glucose is?

*50gram

*100gram

✓*75gram

(103) for GGT in children the dose of glucose is?

*30mg

*15gram

✓*30gram

(104) random blood glucose gives an idea?

*to justify blood glucose

*fasting patient

✓*blood glucose in urgent cases

(105) immunoglobulin is?

*B globulin

*Alfa globulin

✓*Gamma globulin

(106) exogenous triglecrde is carried on?

*VLDL

*HDL

✓*chylomicron

(107) endogenous triglecrde is carried on?

*LDL

*HDL

✓*VLDL

(108) harmful cholesterol is carried on?

*HDL

*VLDL

✓*LDL

(109) useful cholesterol is carried on?

*chylomicron

*LDL

✓*HDL

(110) for lipid investigation patient has to fast?

*4-6hr

*6-8hr

✓*12-14hr

(111) to measure G6PD we use?

*plasma

*serum

✓*whole blood on EDTA

(112) amoeba moves by?

*cilia

*flagella

✓*pseudopodia

(113) one of the following is capsulated bacteria?

*streptococci

*E.coli

✓*klebsiella

(5)

SAUDIA LICENSE EXAMINATION FOR HEALTH SPECIALIST

STRONG UREASE PRODUCERS → (PROTEUS SPECIES

SELECTIVE AND DIFFERENTIAL MEDIUM FOR :-

ENTEROBACTER → DCA (DEOXYCHOLATE CITRATE AGAR)

WHAT IS THE FUNCTION OF THYROXINE (T4) ? ANSWER : IT IS USED IN METABOLISM
CHOCOLATE AGAR → (CAP) IS BEST FOR HAEMOPHILUS INFLUENZAE (THAYER MARTIN- FOR NISSERIA GONORRHOEA)

PROLACTIN IS PRODUCED BY → (ANTERIOR PITUTARY GLAND)

TARGET ORGAN OF PROLACTIN → (MAMARY GLAND)

ESTROGEN IS PRODUCED BY → (OVARY)

CAUSES OF CONJUCTIVITIS TRACHOMA/ CAUSATIVE AGENT (CHLAMYDIA TRACHOMATIS)

IDENTIFICATION OF ENTEROBIUS VERMICULARIS → (RECOVERY OF EGGS IN PERIANAL SKIN)

ICAUSES WHOPPING COUGH → (BORDETELA PERTUSIS) (BORDER GONGOUR MEDIUM)

ALBERT STAIN IS GOOD FOR → (CORYENBACTERIUM DIPHTERIA
ALKALI BURNS → (WASH WITH 10 % CONC. ACETIC ACID)
AN INDICATOR MEANS → (CHANGES OF COLOUR / PH RANGE)

WHEN IT BECOMES RED → (ACIDIC)

WHEN IT BECOMES BLUE → (ALKALINE)

GRAM + BACTERIA ON GRAM STAIN (COLOURED DARK PURPLE)

IODINE STAIN FOR ENTAMOEBA HISTOLYTICA → (FOR IDENTIFICATION OF CHROMATOIDAL BODIES)

MEDIUM FOR MYCOBACTERIUM TUBERCULOSIS TB (LOWENSTEIN JENSEN MEDIUM LJ

INCREASED K LEVEL

(LEISHMANIA DONOVANI)

KALA ZAR

SLIGHT HAEMOLYSIS CAUSE

VISCERAL LEISHMANYIASIS CAUSED BY

PTT DETECTS (INTRINSIC FACTOR ABNORMALTIES).

PROTHROMBINE TIME DETECTS (EXTRINSIC FACTOR ABNORMALTIES)

FOUND IN HYPERGLYCEMIC COMA (KETONES IN URINE).

CITRATE TEST DIFFERENTIATES (GRAM NEGATIVE ENTEROBACTERIACEAE).

EXAMPLE SALMONELLA IS CITRATE +

INDIRECT ANTIGLOBULIN TEST (IDAT) -→

DETECT ANTIBODY/ ANTIBODY SCREENING OF SENSITIZING PATIENT'S Rbcs

INTERMEDIATE HOST OF LEISHMANIA SPECIES-

-→ PHLEBOTOMUS SAND FLY

INTERMEDIATE HOST OF TRYPANOSOMA → TSE TSE Fly

IDENTIFICATION OF MALARIAL PARASITES & Rbcs MORPHOLOGY → THIN SMEAR.

RH NEGATIVE PATIENTS → HAS NO D ANTIGEN .

STORAGE FORM OF GLUCOSE → GLYCOGEN.

PREVENT ATHEROSCLEROSIS → HDL CHOLESTEROL.

ALBERT STAIN → BEST FOR CORYNEBACTERIUM DIPHTERIAE.

BEST FOR STERILIZING MEDIA → AUTOCLAVE

OXIDASE + → PSEUDOMONAS AEROGINOSA

FUNCTION OF CORTISOL → Metabolsim

BEST FIXATIVE FOR BLOOD FILM → ETHYL ALCOHOL

BEST FIXATIVE FOR THIN SMEAR → ETHYL ALCOHOL

CAUSES ORIENTAL SCAR → LEISHMANIA (CUTANEOUS)
 NORMAL RBCS COUNT FOR MALE 4.5 - 6.5
 NORMAL GLUCOSE LEVEL → 70 - 140 (RANDOM)
 H ANTIGEN → FLAGELLAR ANTIGEN
 CAUSES SCARLET FEVER → STREPTOCOCCUS PYOGENE
 CAUSES SCALDED SKIN SYNDROME → STAPH AUREUS
 ZIEHL NELSON STAIN IS USED FOR → MYCOBACTERIUM SP.
 CELLULAR / CELL IMMUNITY → T-LYMPHOCYTE/LYMPHOCYTES
 MONOCYTE → ALSO MACROPHAGE
 OPTOCHIN TEST IS USED TO → DIFFERENTIATE BETWEEN STREPTOCOCCUS PNEUMONIA + FROM VIRIDANS SPECIES OPTOCHIN
 CHINESE LETTER LIKE BACTERIA → CORYNEBACTERIUM DIPHTERIAE
 AST/SGOT → BEST FOR DIAGNOSING BOTH LIVER DAMAGE & MYOCARDIAL INFARCTION
 ALT/SGPT → INCREASE ONLY IN LIVER DAMAGE, NOT IN MYOCARDIAL INFARCTION (MI)

mcqs (multiple choice questions

which of the following culture media is suitable for semi quantitative bacterial count in urine samples

- a-mc conkey agar
- b- blood agar
- c-xld medium
- d-mannitol salt agar

✓**e-cled medium**

the following organisms are lactose fermenters except

- a-e. coli
- b-enterobacter cloacae

✓**c-shigella sonnei**

✓**d-proteus spp.**

bacteriological media can be sterilized in :-

- a-oven
- b-filtration
- ✓**c-autoclave**

all of the following are true except :-

- ✓**b-nutritious**
- c-solidity at 42c 60 %
- d-melts at 100c

primary stain of gram stain :-

- ✓**a-crystal violet**
- b-iodine

the following are used in gram staining except:-

- a-crystal violet
- b-iodine
- c-safranin
- ✓**d-malachite green**

growth of vibrio cholerae on tcbs medium produces colonies :-

- ✓**a-yellow colonies**

- b-blue colonies
- c-green colonies
- d-white colonies
- e-red colonies

on emb /mc conkey agar the salmonella/shigella give small colonies , which colour of the following appear

- a-black
- b-pink
- c-yellow
- d-brown

✓**e-colorless**

f-yellow-brown

which color do gram negative appear:-

- a-blue
- b-green
- c-yellow

✓**d-red**

all is true about enterobacteriaceae except :-

- a-they are hemolytic and sorbitol
- b-ferments mannitol
- ✓**c-grow in methylene blue medium**
- d-inhibited growth with 6.5 % nacl and/or at temperature

which of the following is sterilized in the oven :

- ✓**a-media**
- b-sand
- c-water
- d-blood
- e-all of the above

all are component of gram stain procedure except :-

- a-safranin
- ✓**b-malachite green**
- c-iodine
- d-crystal violet

all are lactose fermenters except :-

- a-e.coli
- b-enterobacter cloacae

✓ **c-proteus spp.**

✓ **d-shigella**

all are true of campylobacter jejuni or which of the following statements about campylobacter

is false:-

- a-gram negative curved bacilli
- b-slow growth

✓ **c-grow on xld medium**

d-arranged in pairs

a parasite which does not deposit eggs in the intestine

✓ **a- e. vermicularis**

- b-a. duodenale
- c-a. lumbricoides
- d-t.saginata
- e-t. spiralis

specimens from a polio victim for culture can be best made on :-

- a-blood
- b-urine
- ✓ **c-feces**
- d-csf
- e- throat / nasal washing

the best anticoagulant for blood culture specimen is:-

- a-heparin
- b-edta
- c-oxalate
- ✓ **d-sps**
- e-acd

d-group d

the vector for leishmania infection is :-

✓ **b-sand fly**

- c-housefly
- d-anopheles mosquito
- e-reduvid bugs

beta hemolysis is enhanced when group b streptococci is streaked at an angle in blood agar plate with

- a-streptococci
- ✓ **b-staph aureus**
- c-micrococcus
- d-streptococcus epidermidis
- e-corynebacterium diptheriae

all statements are true about proteus mirabilis and proteus vulgaris except :-

oxidase negative & liquefies gelatin

- a-exhibits swarming on bap and mc conkey's agar
- b-urease positive
- c-kcn and n2s positive

✓ **d-positive to indole test**

to obtain an isotonic media, sodium chloride content should be :-

✓ **a- 0.85 g %**

- b-0.085 g%
- c- 8.5 g%
- d- 6.5 g%

all is true about salmonella organism except:-

- a- the main reservoir is human
- b-contains o and h antigen
- c-urease , kn and phenylalanine (negative)
- d-h2s positive with gas

✓ **e-indole +**

mycobacterium tuberculosis is called acid-fast because :-

- a-it is easily stained by gram stain
- ✓ **b-once stained , it can not be remove by acid**
- c-it is easily decolorizes after staining.
- d-it is very easy to stain
- e-it is stained by an alkaline stain
- f-none of the above
- g-all of the above

group b beta-hemolytic streptococci are differentiated by other streptococcus groups by using :-

- a-optochin
- b-neufeld quelling reaction.
- c-niacin test
- d-catalase test.

✓ **e-bacitracin sensitivity disc**

most of pathogenic strains of streptococcus belongs to group :-

- a-viridans
- ✓ **b-beta-hemolytic**
- c-alpha-hemolytic

e-micrococccaciae

bacterial sterilization of serum can be accomplished by the filtration using a porosity of : -

✓ **a- 0.22 u**

- b- 0.80 u
- c- 0.60 u
- d- 4.0 u
- f- 5.0 u

select the letter of the best answer the trophozoite , which contains red blood cells in the cytoplasm , brings to this parasite:-

✓ **a-entamoeba histolytica**

- b-entamoeba gingivalis
- c-entamoeba coli
- d-iodamoeba butschlii

e-none of the above

sterilization by the autoclave is best accomplished at

- a -100 c/ 30 minute
- b-100c/10 minute
- c-200c/30 minute
- ✓**d-121c/30 minute**
- e-121c/10 minute

the causative parasite of egyptian bilharisiasis

- a-trichomonas vaginalis
- b-schistosoma haematobium
- c-schistosoma japonicum
- ✓**d-schistosoma mansoni**
- e-all of the above

on emb and mc conkey's agar , the colour of the colonies of shigella – salmonella is :

- a-black
- b-green
- c-pink
- d-yellow
- ✓**e-colourless**

the imvic reaction of e. coli is

- ✓**a/ + + - -**
- b/ - - + +
- c/ + + + -
- d/ + - - -

dwarf tapeworm is known as :-

- a-tania saginata
- b-taenia solium
- ✓**c-hymenolepis nana**
- d-diphilidium caninum

the solidifying content of the culture media is

- a-wax
- b-litmus milk
- c-peptone broth
- ✓**d-agar**
- e-meat extract

micro-organisms that grow at 60 c are classified as

- :- b-not putting antisera c-under incubation
- a-psychrophilic
- b-mesophilic
- c-halophilic
- ✓**d-thermophilic**
- e-saprophilic

a diagnostic finding for giardia lamblia in stool :-

- a-cyst in stool
- ✓**b-cyst and trophozoite in stool**
- c-characteristic ova
- d-trophozoite in stool
- e-all of the above

which of the following is an enrichment medium :-

- a-cled
- b-bap
- c-mac
- ✓**d-thiocyanate broth**
- e-chocolate agar

which of the following indicates a blood agar plate?

- a-corynebacterium diptheriae
- b-mycobacterium tuberculosis
- c-bordetella pertusis
- d-francisella tularensis
- ✓**e-none of the above**

all are member of the family enterobacteriaceae except :-

- a-klebsiella pneumonia
- b-yersinia pestis
- c-pseudomonas aeruginosa
- d-shigella dysenteriae
- ✓**e-campylobacter jejuni**

a specific test for staphylococcus aureus is

- a-catalase test
- ✓**b-coagulase test**
- c-optochin sensitivity test
- d-bacitracin sensitivity test
- e-camp test

the concentration of agar in the culture medium is

- a- 10 - 11 %
- b- 20 %
- c- 50 %
- d-60 %
- ✓**e- 1-2 %**

best for identification of parasite if you can not see it in stool (negative in stool)

concentration technique

identification of fertilized eggs in feces

ascaris lumbricoides

causes false negative abo incomparability/ cross matching :-

- a- deteriorated reagent

false positive abo incompatibility/cross matching cold agglutinin

why do we have to wash red blood cells in cross matching

to remove an excess antibody present in the sample

ivy method of bleeding time for vascular and platelets abnormalities(function)

identification of leishmania parasite

lymph node aspirate.

klebsiella pneumonia

capsulated

neutrophil

most abundant in wbcs

hba

(adult haemoglobin) for adult, dominant in adul

hbf

(infant haemoglobin) fetal haemo

neutrophil

firstly increased in bacterial infections

prolonged application of tourniquet

venous stasis → increased calcium level

✓ **what is the meaning of this sign**

highly flammable

some organisms are said to be pathogenic if they are containing the following features :-

✓ **a- coagulase**

b-catalase

c-sugar

sterilization is best done by

121c 15 psi for 15-20 minutes

most common pathogenic streptococci

a- group a

✓ **b- beta-haemolytic**

c-alpha-haemolytic

bordet gengou medium is best for

a- ✓ bordetella retusis

b-moraxella catarrhalis

c-haemophilus influenzae

organism soluble in bile :-

a-staph

b-streptococci

c-pneumococci

✓ **(streptococcus pneumonia)**

d-haemophilous influenzae

best time for collection of blood for malaria :-

a-before and after paroxsym

✓ **b-shortly after paroxsym**

c-later paroxsym

d-just before paroxsym

elevated serum cortisol may indicate

cushing syndrome

sugar can not be detected in urine using copper reduction test

a-fructose

b-galactose

c-arabinose

hypochromic anaemia

✓ **d-sucrose**

wave length visible to naked eye

400-700 nm.

organism that exhibits satellitism along with staph aureus :-

✓ **a-haemophilus influenzae**

b-shigella sp.

c-clostridium sp.

b-haemophilus

d-s. pneumoniae

antibody found in parasitic infection & allergy :-

✓ **a- anti-a**

b-anti-ab

c-anti-b

egyptian haematuria is caused by :-

a-schistosoma japonicum

✓ **b-schistosoma haematobium**

c-schistosoma mansoni

significant bacteriuria :-

> ten to the power of five cfu/ ml

test used to diagnose obstructive bile duct

✓ **a-bilirubin**

b-biliverdin

c-urobilinogen

d-none of the above

to differentiate between nisseria gonorrhoea & nisseria meningitidis

a-dextrose + lactose

b-dextrose + maltose

in emb & mc conkey , salmonella & shigella give the colour of the following :-

a-pink

b-green

✓ **c-colourless**

d-red

thayer-martin media is the choice for the isolation of the following organism :-

a-pseudomonas aeruginosa

b-haemophilus influenzae

✓ **c-nisseria gonorrhoea**

confirmatory test for strept. pneumoniae :-

a-optochin sensitivity disc

b-bacitracin disc sensitivity

✓ **c-bile solubility**

d-catalase test

in folic acid deficiency what happens to rbc :-

a-enlarged rbc (megaloblastic anaemia)

b-crenated rbc

c-haemolyzed rbc

in iron deficiency anaemia :

rbc are smaller than normal = microcytic

specimen suitable for microfilariae

a-tissue

✓ **b-blood**

c-fluid

which of the following organisms is an anaerobic bacterium :-

a-clostridium spp.

c-e. coli

d-yersinia enterocolitica

ig (immunoglobulin) increased in case of

a- igg
b-iga
c-igm
✓**d-ige**
the infective stage of ancylostoma duodenale is :-
✓**a-eggs in stool**
b-larva in stool
c-larva in tissue
d-cysticercous bovis
nuitrient agar is :-
a-selective media
b-differential media
c-special media
✓**d-basic medium**
purpose of standard deviation :
a-to measure external quality control
b-to measure internal quality control
c-precise & accuracy
✓**d-both a & b**
the following organisms are encpsulated except :-
a-pseudomonas aeruginosa
b-e. coli
✓**c-haemophilous influenzae**
✓**d-streptococcus pneumoniae**
which of the following is protected from light :-
✓**a-bilirubin**
b-cholesterol
c-total protein (tp.)
d-bun (blood urea nitrogen)
to differentiate anti i from anti i
a-a1 cells
b-a2 cells
✓**c-cord cells**
d-none of the above
what practical cardioliipin is applicable in laboratory work ?
a-fta
✓**b-vdrl & rpr**
c-rpr only
d-vdrl only
vi ag is seen in :-
✓**a-capsule**
b-pili
c-spore
d-flagella
infective stage of ascaris :-
a-fertilized egg
b -rhabditiform larva

a-igm (heavier) 1st
b-iga
c-ige

all of the following can asses the liver function except :-
a-ast
b-alt

c-alp
✓**d-creatinine**
substance present in any agar plate that promotes the bacterial growth :-
a-water (h2o)
b-nitrogen
✓**c-minerals**
c-o2
organisms produce gas gangrene :-
a-bacillus anthracis
✓**b-clostridium perfringens**
c-streptococcus pneuniaie
d-haemophilos influenzae
purine associated with
a-adenine
b-guanine
✓**c-uric acid**
d-rna
ig can cause hdn :-
a-igm
b-iga
c-ige
✓**d-igg**
ig not part of acquired immunity :-
a-igm
✓**b-iga**
c-ige
d-igg
protozoa that is not motile
a-entamoeba histolytica
b-e. coli
c-gardia lamblia
✓**d-trypanosoa cruzi**
all cells are nucleated except :-
a-lymph
b-monocytes
✓**c-rbcs**
d-neutrophil

the intermediate host of toxoplasma is :-
a-dog
✓**b-cat**
c-mouse
d-all
e-none
cross-matchin
donour cells +patient seru
viruses resemble living things in that they :-
a-are motile
b-are crystalline
c-grow
✓**d-reproduce**
all are true about enterococci except :-
a-have carbohydrate antigen of group d streptococci
b-positive aesculin hydrolysis
c-grow in the prescence of bile salts

d-do not grow in the prescence of 6.5 % nacl nor at 45 c

the determenation of aso titre is used in the laboratory diagnosis of :-

a-toxic shock syndrome

b-scarlet fever

c-streptococcal pharyngitis and cellulitis

✓ **e-rheumatic fever**

significant bacteruria , puria , and alkaline urine :probably indicate urinary tract infection due to:

a-staphylococcus epidermidis

b-e. coli

c-proteus vulgaris

✓ **d-pseudomonas aeruginosa**

e-enterococcus faecalis

the only enrichment medium of the following is :-

a-blood agar

b-chocolate agar

c-cled (cystine lactose electrolyte deficient)

✓ **d-selenite-f-broth.**

streptococci responsible for the majority of human infections are :-

✓ **a-group a**

b-beta-haemolytic streptococci

c-bacitracin-s and camp (-)

d-all of these

e-none of these

to differentiate between nisseria gonorrhoea and nisseria meningitidis :

a-fermentation of dextrose and lactose

b-fermentation of dextrose and maltose

c-fermentation of maltose and lactose

d-fermentation of maltose and sucrose

the best specimen for recovery of poliomyelitis virus for culture is :-

a-csf

b-blood clot

c-throat swab

d-buffy coat

e-stool

f-none of the above

g-all of the above

the finding of ingested rbcs in a trophozoite identifies :-

a-entamoeba coli

b-endolimax nana

c-entamoeba histolytica

d-iodamoeba butschlii

e-none of the above

f-all of the above

the chromatoid bodies resemble cigar-shaped or sausage-shaped in the cyst of :-

a-entamoeba coli

b-entamoeba histolytica

c-entamoeba gingivalis

d-none of the above

the most favourable time to find malarial parasite in blood is :-

a-the period just before or at the beginning of a paroxsym

b-during the late paroxsymal stage

c-the period just following paroxsym

d-all of the above

the diagnostic stage for the identification of giardia lamblia in stool sample is :-

a-cyst

b-trophozoite

c-cyst and/ or trophozoite

d-all of the above

e-none of the above

the malarial sporozoite in man invades:-

a-white blood cells

b-rbcs

c-reticulo-endothelial cells

d-all of the above

which of the following enlarges rbcs:

a-plasmodium vivax

b-plasmodium malariae

c-plasmodium falciprum

d-all of the above

man may acquire toxoplasma from :-

a-mice

b-cats

c-dogs

d-pigs

all leishmanial infections are transmitted by

a-tse tse fly

b-sand fly

c-house fly

d-horse fly

which of the following neither lays eggs nor deposits larvae in the intestinal canal :-

a-hookworms

b-pinworm

c-trichinella spiralis

d-trichuris trichura

identified by finding mainly the rhabditiform larvae in in fresh stool :-

a-ascaris lumbricoides

b-entrobis vermicularis

✓ **c-strongyloides stercoralis**

d-trichinella spiralis

the resolution of the bright field microscope is :-

a-2.0 um

b-0.2 um

c-0.02um

d-0.002um

bacteriological culture media are generally sterilized using :-

✓ **a-the autoclave**

b-the oven

c-filtration

d-bunsen burner

serum can be sterilized using membrane filter of porosity :-

a-0.22 um

b-2.3um

c-0.6 um

d-0.8 um

the temperature-time cycle when using the autoclave to sterilize is :-

✓a-121 c for 15 - 20 minutes

b-112 c for 30 - 40 minutes

c-135 c for 25 - 40 minutes

d-100 c for 15 - 35 minutes

which of the following statements about campylobacter jejuni is false

a-gram negative curved bacilli

✓ b-arranged in pairs (see-gull)

c-slow growth

d-grows on xld medium

e-incubation temperature at 42 c

direct gram-staining is routinely performed on the following specimens except :-

a-pus

b-aspirated fluids and discharges

c-csf

d-sputum

e-urine

f-stool

blood culture is indicated in the following bacterial diseases except

a-meningitis

b-endocarditis

c-gastroenteritis

d-pyelonephritis

e-pneumonia

all are true about both proteus mirabilis and proteus vulgaris

a-swarming on nutrient agar

b-h₂s positive

c-urease positive

d-indole positive

when using a 10 x eye piece and a 10 x objective of a brightfield microscope , the total magnification will be :-

a-10

b-100

c-1000

d-10000

which of the following microscope would you use to examine a smear of bacteria stained by gram stain

:-

✓a-brightfield microscope

b-darkfield microscope

c-dissecting microscope

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e-fluorescent microscope

which of the following would you use to examine a smear stained with a fluorochrome

a-brightfield microscope

b-dark field microscope

c-polarizing microscope

✓d-fluorescent microscope

quellung test is positive with the following organisms except :-

a-streptococcus pneumoniae

b-haemophilous influenzae

c-klebsiella pneumoniae

d-corynebacterium diphtheriae

growth of vibrio cholerae on tcbs medium produces :-

a-blue colonies

b-yellow colonies

c-green colonies

d-orange colonies

e-white colonies

the following organisms are lactose fermenters except :-

a-e. coli

b-enterobacter colacae

✓c-shigella sonnei

✓ d-proteus spp.

the invasiveness of streptococcus pneumoniae is due to the production of :-

a-haemolysins

b-endotoxins

c-exotoxins

d-polysaccharide capsule

the following are members of the family enterobacteriaceae except :-

a-klebsiella rhinoscleromatis

b-serratia liquefaciens

c-providencia alcalifaciens

d-yersinia pseudotuberculosis

✓e-campylobacter fetus

in significant bacteriuria the cfu/ml is :-

✓a-more than ten to the power of five

b-less than ten to the power of five

c-more than ten to the power of three

d-less than ten to the power of three

the test used to differentiate pathogenic staphylococci is

a-catalase

b-oxidase

✓c-coagulase

d-aso titre

group a streptococci are differentiated from other beta-haemolytic streptococci by :-
disc containing :-

- a-neomycin
- b-optochin
- ✓c-bacitracin
- d-novobiocin

for blood culture the best anticoagulant is

- a-citrate
- b-oxalate
- ✓c-sodium polyanesthol sulphonate
- d-heparin

the organism which shows satellitism around staph aureus on blood agar is

- ✓a-haemophilous influenzae
- b-haemophilous ducreyi
- c-bordetella pertusis
- d-moraxella acunat

the imvic reaction of e. coli are :-

- a- + + - -
- b- - - + +
- c- + + + -
- d- - - - +

blood culture may be indicated for :-

- a-clostridium tetani
- b-corynebacterium diptheriae
- c-sigella dysenteriae
- d-mycobacterium tuberculosis
- e-none of these

1) KLEBSIELLA IS

- A) AEROBIC
- B) ANAEROBIC
- C) FACULTATIVE ANAEROBIC**
- D) STRICTLY AEROBIC

2) CAPSULATED ORGANISM

- A) KLEBSIELLA**
- B) SHIGELLA.
- C) STAPH.
- D) BACILLUS

3) URINE SAMPLE MUST REACH THE LAB & PROCEED WITH IN:

- A) 2 MIN.
- B) 24 HOUR
- C) 2 HOUR**
- D) 72 HOUR

3) WHAT IS THE COMPLEMENT RESPONSIBLE FOR ANAPHYLATOXIN:

- A) C1
- B) C7
- C) C3**
- D) C8

4) WHAT IS THE ORGANISM PRODUCING FOOD POISONING MOST COMMONLY FROM RICE:

- A) B. CERUS**
- B) SALMONELLA TYPHI
- C) EHEC
- D) STAPH. AUREUS

5) H. INFLUENZAE REQUIRED :

- A) X FACTOR
- B) W FACTOR
- C) V FACTOR
- D) X & V FACTOR**

6) WHICH OF THE FOLLOWING ORGANISM REQUIRES FACTOR X ONLY FOR GROWTH:

- A) H. INFLUENZAE
- B) H. PARAINFLUENZAE
- C) H. DEUCARY**
- D) NON

7) SOURCE OF ENERGY:

- A) CARBON
- B) ATP**
- C)
- D)

8) SEXUALLY ACTIVE WOMEN, CAME TO THE DERMATOLOGY CLINIC COMPLAINTING FROM PAINLESS ULCER IN THE GENITAL AREA, RPR RESULT WAS REACTIVE (1/16), THE CULTURE AND GRAM STAIN WERE NEGATIVE. THE CAUSATIVE AGENT IS:

- A) C. TRACHOMATIS**
- B) T. PALIDUM
- C) H. DUCARY
- D) R. RICKITSSIA

10) CLOSTRIDIUM BEST GROW IN:

- A) 10 °C
- B) 15 °C
- C) 25 °C
- D) 35 °C**

11) HEMOLYSIS IS OBSERVED IN:

- A) C. TETANI**
- B) C. PERFRINGENS
- C) C. BOTULINUM
- D) C.

12) GAS GANGRENE IS CAUSED BY:

- A) C. TETANI
- B) C. PERFRINGENS**
- C) C. BOTULINUM
- D) C. DIFFICILE

13) CULTURE MEDIA FOR TUBERCULOSIS:

- A) MAC CONKEY AGAR
- B) BLOOD AGAR
- C) L.J MEDIUM**
- D) CHOCOLATE AGAR

14) ENRICHMENT MEDIUM FOR FECAL SPECIMEN:

- A) S.F BROTH**
- B) MAC CONKEY AGAR
- C) CHOCOLATE AGAR
- D) THAYER MARTIN AGAR

15) TIME IS TAKEN FOR Z - N STAIN:

- A) 2 MIN
- B) 5 MIN
- C) 20 MIN**
- D) 20 HOURS

16) P. FALCIPARUM IS TRANSMITTED BY:

- A) FEMALE ANOPHELES**

- B) MECHANICAL
- C) BLOOD TRANSFUSION
- D) A & C

17) FOR THE DIAGNOSIS OF GARDIASIS, THE SPECIMEN IS:

- A) FATTY STOOL**
- B) GASTRIC ASPIRATION
- D) PREANAL SWAB
- D) NON OF THE ABOVE

18) WHICH OF THE FOLLOWING RESEMBLE PUS CELL UNDER THE MICROSCOPE IN THE URINE ANALYSIS:

- A) E. COLI
- B) STAPH. AUREUS
- B) YEAST CELL**
- D) T. VAGINALIS

19) EGG WHICH IS FLATTENED IN ONE SIDE:

- A) H. NANA
- B) D. LATUM
- C) A. LAMBERCOID
- D) E. VERMACULARIS**

20) URGENT SPECIMEN FOR ANTIMICROBIAL TEST:

- A) URINE
- B) CSF**
- C) STOOL
- D) SPUTUM

21) WHAT IS THE ORGANISM PRODUCING BLUE GREEN PIGMENT ON THE AGAR:

- A) STAPH. AUREUS
- B) E.COLI
- C) P. AEROGINOSA**
- D) S. PYOGEN

22) PASTIRIZATION OF MILK (CONVENTIONAL METHOD):

- A) 120°C
- B) 63°C**
- C) 55°C
- D) 37°C

23) 35 YEARS OLD MAN , WITH PNEUMONIA. Z N STAIN REVEALED WEAK ACID FAST BRANCHING THREADS..... THE CAUSATIVE AGENT IS:

- A) K. PNEUMONIA
- B) N. ASTREODS**
- C) M. TUBERCULOSIS
- D) S. AUREUS

24) VIRUS PARTICLE:

- A) VIROID
- B) VIROIN**
- C) ENVELOPE
- D) MRNA

25) HEV DIAGNOSED BY:

- A) BIOCHEMICAL TEST
- B) PCR
- C) ELISA TEST**
- D) CULTUR
- E) ALL

26) EGG WITH LATERAL SPINE: (IN ACASE)

- A) S. HEMATOBIMUM
- B) S. MANSONI**
- D) S. JAPONICUM
- D) H. NANA

27)THE MAIN IMMUNOGLOBULIN IN SECRETION:

- A) IgM
- B)IgG
- D) IgA**
- D) IgE

28) DIAGNOSIS OF ACUTE TRICHOMONAS VAGINALIS:

- A) IgG
- B) IgM**
- C) IgA
- D) IgD

29) STAPH. IS THE COMMENEST CAUSE OF :

- A) WOUND INFECTIONS**
- B) UTI
- C) GASTEROENTERITIS
- D) PNEUMONIA

30) BETA HEMOLYTIC:

- A) GROUP A**
- B) GROUP B
- C) GROUP D
- D) GROUP F

31) CHLYMIDIA PNEUMONIA IS THE CAUSITIVE AGENT OF:

- A) TRACHOMA
B) CONJUNCTIVITIS
C) LGV (LYMPHOGRANULOMA VENEREUM)(CAUSED BY C.L1,L2,L3 SEROTYPE).
D) NON

32) FINGER PRINTING REQUIRE:

- A) POLYMERASE
B) RESTRICTION ENDONUCLEASE
C) TRANSCRIPTASE
D) LIGASE

33) CONTROLLING OF NORMAL FLOARA IN THE SMALL INTESTINE:

- A) LOW PH
B) ANTIBODY
C) MICROVILLI MOVMENT
D) NON OF THE ABOVE

34) ALL OF THE FOLLOWING ORGANISM CAN BE FOUND IN THE URINE EXCEPT:

- A) E. COLI
B) ENTEROCOCCI
C) H . INFLEUNZA
D) S. SAPROPYTICUS

35) ALL OF THE FOLLOWING ARE USED IN VIROLOGY DIAGNOSIS EXCEPT:

- A) ELISA
B) PCR
C) GRAM STAINING
D) TISSUE CULTURE

36) SPECIFIC TEST FOR SYPHILIS:

- A) VDRL
B) TPHA
C) RPR
D) A & C

37) PATIENT WITH STRONGYLOIDES STERCORALIS WAS NEGATIVE FOR THE LARVA IN THE STOOL FOR THREE SAMPLES, WHAT IS THE OTHER TYPE OF SPECIMEN YOU WILL TAKE TO CONFIRM THE INFECTION:

- A) GASTRIC ASPIRATION
B) ANAL SWAB
C) PRETONIAL FLUID
D) SMALL INTESTINE BIOBSY

38)THE FOLLOWING ORGANISM HAS THE ABILITY OF ANTIGENITIC

VARIATION FROM ONE GENERATION TO THE OTHER:

- A) L. DONOVANI
B) T. CRUZI
C) T. GAMBIENES
D) T. SAGINATA

Antigenic variation of surface antigens occurs only in Plasmodium falcibarum and in in african trypanosomes (Trybanosoma bruci bruci).and T. gambiense.

39) BORDETELLA PERTUSSIS IS THE CAUSATIVE AGENT OF:

- A) ENDOCARDITIS
B) WHOOPING CUUGH
C) DIARRHEA
C) ALL OF THE ABOVE

40) BUBONIC PLAGUE IS TRANSMITTED BY:

- A) SEXUAL
B) FLEA
C) AIRBORN
D) NON

41) FOR BLOOD CULTURE, WHAT IS THE ANTISEPTIC USED BEFOR COLLECTING BLOOD SAMPLE:

- A) FORMALDEHYDE
B) CHLORINE
C) ALCOHOL
D) PHENOL

42) WHICH OF THE FOLLOWING TEST IS NOT OF A VALUE IN DIFFERENTIATION BETWEEN V. CHOLERA & V. PARAHEMOLYTICUS:

- A) GROWTH IN NACL
B) OXIDASE TEST
C) FERMENTATION ON TCBS
C) ALL

43) THE LOWEST INFECTIVE DOSE OBSERVED IN:

- A) EHEC
B) S. DYSENTERIS
C) S. ENTEROCOLITIS
D) S. AUREUS

- Escherichia coli : very large (10^6 - 10^8 of organisms)
- Salmonella : quite large in order to definitely establish infection (e.g. $> 10^5$ of

organisms) but infection may also be established by lower numbers (e.g. 10s of organisms).

- Cholera : relatively large (10^4 - 10^6 of organisms)
- Bacillus anthracis : relatively large (10^4 spores)
- Campylobacter jejuni: low (500 organisms)
- Francisella tularensis: very low (10-50 organisms)
- Shigella : very low (10s of organisms)
- C.parvum : very low (10 to 30 oocysts)
- Escherichia coli O157:H7 : very low (< 10 organisms)
- Entamoeba coli : extremely low (from 1 cyst)

The likelihood of infection in all cases is also linked to the immune status of the individual (immunocompromised individuals may become infected more readily).

44) MEDICALLY IMPORANT FUNGI IS/ ARE:

- A) MYCOSIS
- B) MYCOTOXICOSIS
- C) SUPERFECIAL MYCOSIS
- D) ALL OF THE ABOVE**

45) MAST CELL GRANLULES RICH IN:

- A) INTERFERON
- B) HISTAMIN**
- C) IL
- C)TNF

46) CYTOTOXIC T CELLS (CD8) RECOGNIZE Ag BOUND TO :

- A) MCH I**
- B) MCH II
- C) CD4
- D) ALL

47) PROTECTION FROM AMEOBA BY:

- A) MEDICATION
- B) PERSONAL HYAGEN
- C) DISINFECTION OF SEWAGE
- D) B & C**

48) DEFECTIVE VIRUS:

- A) CMV
- B) HBV

- C) HDV**
- D) HSV I

49) WHAT TOXIN BLOKS THE FUNCTION OF THE INHIBITORY NEUROTRANSMITTER AT SYNAPES IN SPINAL CORD LEADING TO SPASM:

- A) B. PERTUSSIS
- B) CHOLERA

- C) C. BOTULINUM**
- D) C. TETANUS

50)WITH AN APPROPRIATELY PERFORMED ACID-FAST STIANING PROCEDURE, S. EPIDERMIDIS WILL APPEAR:

- A. BLUE**
- B. RED
- C. PURPLE
- D. COLORELESS

هذه الأسئلة جات من خارج النماذج الخمسة

Hemolysis Bacteria see in the :

Xld agar

Blood agar

Chocolate Agar

Hemolytic Anemia in newborn :

Mother +Rh

Father +Rh

Baby -Ve

B and C

Infections stage of lishemia :

Larva

Cyst

Egg

Hypersercretion the insulin:

Hypoglycemia

Not found in prokaryotic :

Bacteria

Sprozoa

Chlamydia

Spirochetes

Rickettsia

The End of The production Carbohydrates

:

Glucose

Glactose

Clen the Microscope Lense :

Xylene

More solution in Chemicals Containing :

Flammable

Corrosive

Oxidizing

Explosive

Toxic

+Ve Has :

No Abo group

No Rh

If the child was+ and the mother -The

Antibiotic :<<

دي ماجاوب عليها

Anti -D immune

Anti -E immune

Anti -e immune

Anti -C immune

Anti -c immune

One of the answers wrong :

Placenter:Estrogen

Pancreas :Cortisol

Thyriod :T4

Pituitary Gland :Growth Hormone

نجي لترجمها عشان اذا كانت مش واضحة نوضحها

Eye Glasses -1

Gloves -2

Labcoat -3

Face Mask -4

Hand wash tape -5

Eye Wash tape -6

Ambulance Emergency -7

Pressed gase -8

Oxidizing -9

Flammable -10

لم يترجمها

Corrosive -11

High Voltage -12

Dangerans reactive -13

Lizer -14

Explosive -15

Toxic -16

Radiochan Substances -17

Bio-hazard -18

أحمر : الإجابة الصحيحة *

Parasitology

- parasite in blood :-

1. Trypanosoma .
2. Malaria .
3. Leishmania .
4. Toxoplasmosis .

- parasite in blood :-

1. Trypanosoma :-

- trypanosome habitat blood .
- Intermediate = the bite tse tse fly .
- infection stage = stum by trypanosome .
- Diagnostic by = trypanosome in blood .
- trypanosome move by flagella .
- trypanosome type :-
- 1. trypanosome cruzi : cause chagas disease .
- 2. trypanosome gambienses : cause sleeping sickness .
- 3. trypanosome rhodesienses : cause sleeping sickness .

2. Malaria :-

- Malaria habitat blood .
- Intermediate = female mosquito .
- infection stage = sporozoites .
- in malaria RBC are lysis .
- malaria detection by Thick blood film .
- type of malaria :-
- 1. plasmodium vivax = cause Enlarges RBC .
- 2. plasmodium falciparum = cause malignant malaria . is most abundant prevalence.
- 3. plasmodium malariae .
- 4. plasmodium ovale.

3. Leishmania :-

- Leishmania is intercellular parasite .
- Leishmania cause tow disease :-
- Visceral Leishmania and cutaneous Leishmania .
- transmits by = sand fly .
- infection stage = larva .
- use stain fields stain and gimsa stain .
- Leishmania tropica cause oriental sore disease.
- Leishmania donovani { Visceral Leishmania } cause kala-azar and black fever .

4. Toxoplasmosis :-

- diagnosis by = serology test .
- intermedia host = human .
- man may acquire from cats .

* - Toxoplasma gondii :-

- non motile protozoa .

- this organism multiply intracellular parasite.
- can cause fetal cerebral infection .
- the definitive host is animal.
- human is not definitive host .

- parasite in urine :-

1. schistosoma haematobium :-

- habitat pelvic plexus .
- infection stage = cercaria .
- Diagnostic stage = egg in urine .
- mode of infection = cercaria penetrates skin .
- cause Egyption haematuria .

2. Trichomonas vaginalis :-

- habitat = vagina , urethra , prostate .
- infection stage = trophozoite .
- diagnosis by = trophozoite in vagina , prostatic secretion , and urine .
- can be detected in vaginal and urethral discharge .
- protozoa in sexual reproduction .

- parasite in stool :-

1. schistosoma masoni :-

- habitat = Mesenteric plexus .
- infection stage = cercaria .
- mode of infection = cercaria penetrates skin .
- diagnostic stage = Egg in Faeces .

2. Taenia saginata :-

- habitat = small intestine .
- infection stage = cysticercus bovis .
- mode of infection = ingestion undercooked beef .
- diagnostic stage = Egg in Faeces .

3. Giardia lamblia :-

- habitat = duodenum .
- infection stage = cyst .
- diagnostic stage = trophozoite and cyst in faeces .

4. hymenolepis nana { dwarf worm } :-

- habitat = small intestine .
- infection stage = cysticercoid .

- mode of infection = ingestion of egg or insect .
 - diagnostic stage = Egg in Faeces .
5. Entamoeba histolytica :-
- habitat = large intestine .
 - infection stage = mature cyst .
 - mode of infection = ingestion of mature cyst .
 - diagnostic stage = trophozoite and cyst in faeces .
6. Enterobius vermicularis :-
- habitat = large intestine .
 - infection stage = Embryonated egg .
 - Diagnostic stage = Egg on perianal region.
7. Ascaris lumbricoides :-
- habitat = small intestine .
 - infection stage = Embryonated egg or larva
 - mode of infection = swallowing water or vegetables .
 - diagnostic stage = fertilized Egg in Faeces.
8. Diphylobthrium latum :-
- habitat = small intestine .
 - infection stage = plerocercoid larva in fish muscle .
 - mode of infection = ingestion of undercooked fish .
 - diagnostic stage = Egg in Faeces .
8. fasciola :-
- habitat = bile duct of man .
 - infection stage = encysted metacercaria on grass or in water .
 - mode of infection = ingestion of raw vegetation or water .
 - diagnostic stage = Egg in Faeces .
9. Heterophyes heterophyes :-
- habitat = small intestine .
 - infection stage = encysted metacercaria in fish muscle .
 - mode of infection = ingestion undercooked fish .
 - diagnostic stage = Egg in Faeces .

10. Trichuris trichiura :-
- habitat = large intestine { caecum } .
 - infection stage = Embryonated egg .
 - mode of infection = swallowing water or vegetables .
 - diagnostic stage = Egg in Faeces .

10. Hookworms :-
- habitat = small intestine .
 - infection stage = filariform larva .
 - mode of infection = when the filariform larva penetrates his intact skin or mucous membrane of the mouth .
 - diagnostic stage = Egg in Faeces .

11. Strongyloides stercoralis :-
- habitat = small intestine .
 - infection stage = Embryonated egg .
 - mode of infection = when the filariform larva penetrates his intact skin or mucous membrane of the mouth .
 - diagnostic stage = Rhabditiform larva in Faeces .

أهم الأسئلة التي جات بالهيئة 2010

1. Chagas disease caused by ?
Trypanosome cruzi .
2. Malaria diagnosis by ?
Thick blood film .
3. Taenia saginata diagnosis by ?
Egg in stool .
4. Ascaris lumbricoides infection stage ?
Embryonated egg .
5. Rice water stool can be caused by ?
Vibrio cholera .
6. Lactobacilli isolated in ?
Stool .
7. Yellow brown barrel-shaped egg , colorless produce plug polar is ?
Trichuris trichiura
8. Parasite cause cerebral malaria ?
Plasmodium falciparum .
9. Infection stage of Ancylostoma ?

Larva

10. transmitte through sexual intercourse ?

Trichomonas vaginalis .

12. human scabies diagnose by ?
skin scraping of lesion .

13 - Cause Kala- azar:

a- leishmania tropica

b- leishmania braziliense

c- leishmania donovani

d- leishmania mexicana

14- cause oriental sore:

a- plasmodium ovale

b- leishmania tropica

c- leishmania donovani

d- trypanosoma rhodesiense

15- infective stage of S.mansoni

A- embryonated egg

B- larva

C- cercaia

D- oocyst

16- The cause of sleeping sickness:

a- trypanosoma gambiense

b- trypanosoma cruzi

c- trypanosoma rhodesiense

d- (a) & (c)

أخوكم ضامي إحساس

T055t@hotmail.com

1. Chaga's disease is caused by _____
a- Trypanosoma cruzi.
2. In a diagnostic picture of acute leukemia _____ [CBC + Bone Marrow exam..]
a- Sudan
b- Common all Ag GT10.
c- T-cell res..
d- More 20% platelet are NBW.
3. Medium that inhibits growth of some organisms and support others is _____
a- Selective medium.
4. Which of the following components of ELISA is sensitive to light ?
a- Conjugate only.
b- +ve control.
c- Substrate only.
d- Conjugate + Substrate.
5. In the fragility of erythrocytes sBH erocytic ...???
6. Method of choice for sterilization of nutrient agar ?
a- Hot oven.
b- Steaming 100 Co.
c- Tantalization.
d- Autoclave.
7. What is the life spin of RBCs?
a- 120 days.
8. Blood donor which is 2 weeks old donation, blood does not contain adequate _____
a- Protein.
b- Fibrin.
c- pH.
d- Hb
e- Anticoagulant.
9. If a serial dilution is prepared in 2 fold dilution final dilution in tube 5 is _____
a- 1/32

10. Storate bo----- disease is associated with the defect of which _____
a- Glycoprotein IB.
b- Glycoprotein IB-IIa.
c- A granulate.
d- Denst- granulate.
e- Both a + d.
11. Poikilocytosis means _____
a- Variation of RBCs shape.
12. What is the most common type of anemia ?
a- Macrocytic anemia.
b- Normocytic anemia.
c- Microcytic anemia.
d- Dimorphic anemia.
13. Visceral Leishmaniasis caused by _____
a- Trypanosoma cruzi.
b- Leishmania donovani
c- Tryp....
d- Leishmania
e- Plasmodium
14. Anisocytosis means _____
a- Variation of RBCs size.
15. What is the organ that responsible for producing 90% of body's erythropoietin?
a- Kidney.
16. Which of the following chemical substance is normal finding in urine?
a- Protein.
b- Chloride.
c- Glucose
d- Bilirubin.
e- Hb.
17. Which of these parasites can cause cerebral malaria?
a- P. falciparum.
b- P. vivax.
c- P. oval.

d- P. malaria.

18. _____ is the sample comes from emergency or ICUH considerate a(an)

- a- Urgent state test.
- b- General test.
- c- Specialized test.
- d- Hor...

19. Double zone haemolysis _____
a- Clostridium perfringens.

20. Number of light chains in each Ab is _____
2

21. When Na concentration is higher than the normal range this is called _____
a- Hyponatremia.

22. The pH indicator used in TCBS agar is _____
a- Bromo thymol blue.

23. Substance that increased in blood in gout disease is _____
a- Uric acid.

24. Which of the following is test used for average blood sugar measure over 3 months?
a- Hemoglobin A1c blood test.

25. Which of the following is a true statement regarding Bacillus anthrax?
a- ???? ???? ???? ???? ?

26. All of the following are considered blood parasite EXCEPT _____
a- Schistosoma.
b- Trypanosoma.
c- Leishmania.
d- Plasmodium.
e- None of the above.

27. Schistosoma hematobium is caused by _____.
a- Ingestion of oocyst.
b- Penetration of skin by cercaria.

28. Mycobacteria tuberculosis is best cultured on _____
a- L J medium.

29. Enterococci are typically arranged and can be differentiated from _____.
a- Staph. aureus.
b- N. gonorrhea.
c- Strep. pneumoniae.
d- Strep. viridans.

30. In the lab. an individual must wear _____
a- a coat.
b- Eye glasses.
c- Gloves.
d- All.

31. The etiology of neutropenia includes _____
a- Hyper splenish.
b- Tissue injury.
c- Myelodysplasia.
d- All.

32. Which of the following statements is false regarding Bacillus anthrax ?
a- They are large G+ve bacilli.
b- They are non-motile.
c- They form non-hemolytic colonies.
d- They are motile.

33. If a woman is a blood type AB and her husband is blood type B they can not have child of blood type _____
a- AB.
b- A.
c- B.
d- O.

34. Permanent deferral of a donor occur in _____
a- Diarrhea.
b- HCV +ve.
c- Iron deficiency anemia.
d- Fever.

35. Another type of adaptive immunity is _____

- a- Ag immunity.
- b- Acquired immunity.
- c- Lymphocyte reactive immunity.
- d- Phagocytes.

36. Oocyst of *Toxoplasma gondii* is found in _____

- a- Blood sample of patient.
- b- Brains of chronic patient.
- c- Feces of infected cats.
- d- Urine sample of patient.
- e- All.

37. Humoral component of adaptive immune system include _____

- a- T-lymphocytes.
- b- B-lymphocytes.
- c- Ab.
- d- Saliva.

38. Which of the following is blood sample used in biochemistry lab. ?

- a- Na or Li heparin (green stopper)
- b- EDTA tube (lavender stopper)
- c- Citrate tube (blue stopper)
- d- All.

39. The process of erythropoiesis _____

- a- Takes place in spleen.
- b- Requires Vit B12 and folic acid.
- c- It is inhibited by erythropoietin.
- d- Stimulated when there is low oxygen in blood.
- e- B + D.

40. Black water fever mostly occurs with _____

- a- *Plasmodium oval*.
- b- *Plasmodium vivax*.
- c- *Plasmodium falciparum*.
- d- *Plasmodium malaria*.

41. *Streptococci* consists of _____

- a- Alpha hemolytic strep.
- b- Beta hemolytic strep.
- c- Gamma hemolytic strep.
- d- All.

42. Estimation of blood urea is considered what type of tests ?

- a- Heart function.
- b- Liver function.
- c- Kidney function.

43. *Staph. aureus* can a severe food reaction that results from ingestion of _____

- a- Entero-toxin.
- b- Exo-toxin.
- c- Hemolysin.
- d- Streptolysin.

44. Iodine stool preparation is used to detect which part of *E. histolytica* cyst ?

- a- Nuclei.
- b- Chromatic.
- c- Cyst wall.
- d- None of the above.
- e- All.

45. Arterial blood sample is usually collected for the assay of _____

- a- Lipid.
- b- Enzyme.
- c- Blood gases.
- d- Bilirubin.
- e- Glucose.

46. The secondary immune response (2nd attack of an Ag) is supported by _____

- a- Ig G.
- b- Ig D.
- c- Ig M.
- d- Ig A.

47. Some organism can grow only when another organism is growing on blood agar this type of growth is known as _____

- a- Parasitism.
- b- Antagonism.

- c- Synergism.
- d- Satelatism.
- e- Synchronism.

48. Which of the following is gonadotropin hormone secreted by the anterior pituitary gland ?

- a- LH.
- b- ACTH.
- c- TSH.
- d- Prolactin.

49. An individual with which of the following characteristics can not donate blood ?

- a- Individual age 17-60 years.
- b- Individual weight >50 Kgm.
- c- Individual is pregnant.
- d- Individual is a man with Hb 17.

50. Color of blood group Anti-A sera is _____

- a- Yellow.
- b- Blue.
- c- Colorless.
- d- Red.
- e- Green.

51. Which of the following can be define as the distribution of values around mean ?

- a- Standard deviation.
- b- Coefficient of variance.
- c- Mean of variance.
- d- All.

52. Ab which is not flexible is _____

- a- Ig G
- b- Ig D.
- c- Ig E.
- d- Ig A.

53. Strains of E. coli that cause gastroenteritis are subdivided into _____

- a- Entero-toxigenic.
- b- Entero-pathogenic and Entero-aggregative.
- c- Entero-invasive and Entero-hemorrhagic.

- d- All.

54. What is the test performed in the initial evaluation of anemia after the patient history and physical examination ?

- a- Bleeding time.
- b- Platelet count.
- c- CBC.
- d- PT.
- e- PTT.

55. Hypocalcemia defined when patient Ca level is _____

- a- 15 mg/dl.
- b- 12 mg/dl.
- c- 10 mg/dl.
- d- 7.5 mg/dl.

56. chocolate agar culture _____

- a- Beta-hemolytic strep..
- b- Hemolytic staph.
- c- Fungi.
- d- Hemophilus influenza.
- e- Chlamydia.

A-Choose the correct statement :
(30 marks)

1. The complication of hook worms is
A) iron deficiency anemia
B) hyperglycemia
C) hypertension
D) non of the above
2. The rhabditiform larva of Strongyloides stercoralis can detected in
A) stool
B) sputum
C) urine
D) A&B
3. The laboratory diagnosis of trichuris trichiura is made by finding
A) barrel shape egg
B) Larva
C) Cyst
D) Trophozoit
4. We can differentiate between Taenia solium and Taenia saginata by
A) eggs
B) gravid segment
C) length of worm
D) width of worm
5. Taenia saginata is
A) beef tapworm
B) pork tapworm
C) chicken tapworm
D) fish tapworm
6. The control of Trichuris trichiura is by
A) sanitary disposal of feses
B) education
C) treatment
D) all the above
7. The egg of Echinococcus granulosus hatch to give
A) oncospheres
B) adult worm
C) hydatid cyst
D) Cysticercus Larva
8. The infective stage of Schistosoma
A) eggs
B) larva
C) cercaria

D) Trophozoit

9. The following are diagnostic features of Strongyloides stercoralis except
A) epigastric pain
B) eosinophilia
C) mucus diarrhea
D) fever
10. All those organism belong to nematodes except
A) Trichuris trichiura
B) Ascaris lumbricoides
C) Hook worms
D) Schistosoma mansoni
11. The parasites that may case life threatening with AIDS patient are
A) Isospora
B) Cryptosporidium
C) G. lambilia
D) A&B
12. Which disease transmitted by Lice?
A) relapsing fever
B) typhus
C) malaria
D) A&B
13. Taenia solium is belong to
A) cestodes
B) trematodes
C) nematodes
D) protozoa
14. All those organism belong to trematodes except
A) Schistosoma hematobium
B) Ascaris lumbricoides
C) Fasciolopsis buski
D) Schistosoma mansoni
15. *G. lambilia* moved by
A) pseudopodia
B) cilia
C) flagella
D) non of the above
16. A diagnostic finding for Diphylobothrium latium
A) ovoid, operculated eggs in stool
B) rosette shape segment

- C) cyst
- D) A&B

17. The infective stage of *Enterobius vermicularis* is

- A) larva
- B) eggs
- C) cyst
- D) non of the above

18. The infective stage of the *Taenia* worms is

- A) cysticercus larva
- B) cercaria
- C) cyst
- D) trophozoite

19. The infective stage of the *Schistosoma* worms is

- A) cysticercus larva
- B) free living cercaria
- C) cyst
- D) Trophozoite

20. All this parasites are pathogenic except

- A) *Entamoeba histolytica*
- B) *Isospora*
- C) *G. lamblia*
- D) *Trichomama tenax*

21. All this parasite are not pathogenic except

- A) *Trichomama tenax*
- B) *Trichomam homnis*
- C) *Chilomastic Mesnil*
- D) *Trichomam vaginalis*

22. To collect feces from patient infected with *Enterobius vermicularis* we used

- A) syringe
- B) scotch tape
- C) pipette
- D) non of the above

23. Which one is belong to hexapoda?

- A) bugs
- B) mites
- C) ticks
- D) *Entamoeba coli*

24. *Echinococcus granulosus* is

- A) tapeworm
- B) protozoa
- C) trematodes
- D) nematodes

25. The laboratory diagnosis of *G. lamblia* done by finding

- A) cyste
- B) trophozoite
- C) oocyst
- D) a&b

26. The Trophozoite which contain red blood cell in its cytoplasm is

- A) *Entamoeba coli*
- B) *Entamoeba histolytica*
- C) *Entamoeba gingivalis*
- D) *Iodamoeba*

27. Steatorrhea is associated with

- A) *Trichomam vaginalis*
- B) *G. lamblia*
- C) *Entamoeba histolytica*
- D) *Trichomam homnis*

28. *Blantidium coli* is a

- A) largest human protozoa
- B) tapeworm
- C) sexual transimited disease
- D) non of the above

29. Amoeba move by

- A) *pseudopodia*
- B) cilia
- C) flagella
- D) non of the above

30. A diagnostic finding for *Taenia solium* is

- A) ova in stool
- B) gravid segment
- C) larva in stool
- D) A&B

31 medical parasitology study include:

- a- protozoa
- b- helminthes
- c- arthropods
- d- all of the above

32- parasites are

- a- all harmful
- b- all benefit
- c- a& b
- d- non of the above

33- infection with protozoa can be:

- a- asymptomatic
- b- life threatening
- c- a & b
- d- non of the above

34- morphology of protozoa currently classified into:

- a- 6 phyla
- b- 10 phyla
- c- 20 phyla
- d- 100 phyla

35- actively feed and multiply stage of parasite called:

- a- cyst
- b- trophozoites
- c- egg
- d- non of the above

36- stage with a protective membrane or thickened wall called:

- a- cyst
- b- trophozoites
- c- egg
- d- non of the above

37- binary fission:

- a- most common form of reproduction
- b- asexual
- c- a& b
- d- non of the above

38- protozoa can be found in:

- a- water
- b- soil
- c- air
- d- all of the above

9- carriers:

- a- his defenses able to control but not eliminate parasitic
- b- constitute source of infection for other
- c- a & b
- d- non of the above

40- pneumocystis carinii:

- a- found in low number in lung of the healthy people
- b- produces frequently fatal pneumonia in AIDS patients
- c- a & b
- d- non of the above

41. The parasites that may case life threatening with AIDS patient are

- A) Isospora
- B) Cryptosporidium
- C) G. lambilia
- D) A&B

42. Which disease transmitted by Lice?

- E) relapsing fever
- F) typhus
- G) malaria
- H) A&B

43. Taenia solium is belong to

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- C) nematodes
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- B) Ascaris lumbricoides
- C) Fasciolopsis buski
- D) Schistosoma mansoni

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- C) flagella
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- H) non of the above

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- G) cyst
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- A) cysticercus larva
- B) free living cercaria
- E) cyst
- F) Trophozoit

49. Which disease transmitted by Tabanus?

- A) malaria

- B) anthrax
C) leishmania
D) typhoid fever
50. All these parasites are pathogenic except
E) *Entamoeba histolytica*
F) *Isospora*
G) *G. lamblia*
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c- a & b
d- none of the above
- 66- *Pneumocystis carinii*:
a- found in low number in lung of the healthy people
b- produces frequently fatal pneumonia in AIDS patients
c- a & b

- d- non of the above
- 67- apicomplexa reproduction by:
- a- sexual only
 - b- asexual only
 - c- sexual and asexual
 - d- non of the above
- 68- asexual form of reproduction in toxoplasma is:
- a- endodyogeny
 - b- binary fission
 - c- schizogony
 - d- non of the above
- 69- asexual form of apicomplexa reproduction in is:
- a- endodyogeny
 - b- binary fission
 - c- schizogony
 - d- non of the above
- 70- actively feed and multiply stage of heamoflagellates called:
- a- amastigote
 - b- promastigote
 - c- epimastigote
 - d- all of the above
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- I) barrel shape egg
- J) Larva
- K) Cyst
- L) Trophozoite

Clinical Pathology

1. Malaria does not grow in

- [A] Puked RBCs
- [B] EDTA blood
- [C] Plasma

Answer [C]

2. Polio myelitis is transmitted through

- [A] Feco-oral

Answer [A]

3. serious organism that cause food poisoning

- [A] Staph. albus
- [B] Salmonella enteritidis
- [C] Clostridium septica
- [D] Salmonella Typhi

Answer [A]

4. Vitamin A deficiency causes

- [A] Kwashiorkor
- [B] Night blindness
- [C] Goiter
- [D] Hepatomegaly
- [E] Steatorrhea

Answer [B]

5. For absorption of calcium the body need

- [A] Vitamin C
- [B] Vitamin B2
- [C] Vitamin D
- [D] Vitamin A
- [E] Vitamin B6

Answer [C]

6. Yaws disease is caused by

- [A] Treponema pallidum
- [B] Trep. Pseudopallidum
- [C] Trep. Peretenu

Answer [C]

7. Action of Strept. Pyogene is through

- [A] Hyaluronidase
- [B] Streptokinase
- [C] Staf kinase
- [D] Coagulase

Answer [B]

8. First line of body defense against Staphylococci is

[A] Phagocytosis

[B] TL - II

Answer [A]

9. Renal impairment may be due to all except

[A] Glactosaemia

Answer [A]

10. Diffusion in semi solid is used to

[A] Detection amount of Ab. to neutral Ag

Answer [A]

11. Goiter is

[A] Enlargement of kidney because oh high intake of sodium

[B] Enlargement of the prostate gland

[C] Increased levels of calcium in the body

[D] Enlargement of thyroid gland due to iodine deficiency

[E] Deficiency of iron

Answer [D]

12. Cholesterol is present in

[A] Corn oil

[B] Sesame oil

[C] Olive oil

[D] Palm oil

[E] Butter

Answer [E]

13. Iron containing protein is

[A] Thyroglobulin

[B] Albumin

[C] Hemoglobin

[D] Globulin

[E] Insulin

Answer [C]

14. Excess carbohydrate in the body

[A] Stored as glycogen and fats

[B] Can be used in repairing damaged tissue and growth

[C] It will increase the motility of the

intestine and facilitates defecation

[D] Can be stored as cellulose

[E] Can be stored as casein

Answer [A]

15. In N.gonorrhea the best growth media is

[A] Thayer martin

[B] Blood agar

Answer [B]

16. Vaginal discharge occur with all except

[A] Gardenella

[B] Trichomonas vaginalis

[C] Cryptococcus

[D] Candida

[E] N.gonorrhea

Answer [A]

17. Hemophilia "A" man married to normal female the incidence of his children will be

- [A] Male carrier
- [B] Female carrier
- [C] Disease male
- [D] Disease girls
- [E] Normal all

Answer [B]

18. Which of the following is an essential fatty acid

- [A] Aspartic acid
- [B] Acetic acid
- [C] Alpha Linolenic acid
- [D] Myristic acid
- [E] Palmitic acid

Answer [C]

19. The best useful test to differential between Hemophilia "A" from Hemophilia "B"

- [A] PTT
- [B] PT
- [C] Inheritance studies

Answer [C]

20. In electronic coulter the total count was 22×10^9 the nucleated cell was

200/100WBCs How much will be the accurate leucocytic count

- [A] 7,500
- [B] 11,00
- [C] 4,00
- [D] 20,00

Answer [A]

21. Vitamin C deficiency can cause

- [A] Anemia
- [B] Osteoporosis
- [C] Marasmus
- [D] Goiter
- [E] Scurvy

Answer [E]

22. Beri Beri is caused by the deficiency of

- [A] Vitamin B12
- [B] Vitamin D
- [C] Vitamin B1 (thiamine)
- [D] Riboflavin
- [E] Biotin

Answer [C]

23. Vitamin required for blood coagulation

- [A] Vitamin K
- [B] Pyridoxine
- [C] Vitamin E
- [D] Vitamin D

[E] Pantothenic acid

Answer [A]

24. Which of the following is rich in cholesterol

- [A] Egg
- [B] Apple
- [C] Corn oil
- [D] Bread
- [E] Honey

Answer [A]

25. Which of the following cause U.T.I and it is indole positive

- [A] Kleb.
- [B] Staph.
- [C] E.Coli
- [D] Salmonella

Answer [c]

26. Enzyme required to digest milk sugar is

- [A] Lipase
- [B] Lactase
- [C] Amylase
- [D] Maltase
- [E] Sucrase

Answer [B]

27. Phenylketonuria is caused by the lack of an enzyme to metabolize

- [A] Leucine
- [B] Tyrosine
- [C] Alanine
- [D] Phenylalanine
- [E] Histidine

Answer [D]

28. Rota virus : which is not correct

- [A] Has 4 serotype
- [B] Cause diarrhea

Answer [B]

29. Good source of omega 3 fatty acid is

- [A] Fatty fish
- [B] Palm oil
- [C] Butter
- [D] Orange
- [E] Parboiled rice

Answer [A]

30. Dietary factor blamed to cause Caries is

- [A] Simple carbohydrates
- [B] Proteins
- [C] Fats

- [D] Vitamin C deficiency
- [E] Complex carbohydrates

A

nswe
r [A]

31. Chromosomal abnormality of t (8 , 21) associated with

- [A] CML , ALL
- [B] M1
- [C] M2
- [D] M4 with eosinophilia
- [E] M5 b

Answer [B]

32. Chromosomal abnormality in M3 is

- [A] t (15 , 17)

Answer [C]

33. ITP (Idiopathic Thrombocytopenic Purpura) occur in all except

- [A] Hyper splenism
- [B] Sarcoidosis
- [C] S.LE
- [D] Quinidine

Answer [A]

34. In factor XIII deficiency what will be affected

- [A] PTT
- [B] PT
- [C] Thrombin time

Answer [C]

35. For absorption of calcium the body need

- [A] Vitamin C
- [B] Vitamin B2
- [C] Vitamin D
- [D] Vitamin A
- [E] Vitamin B6

Answer [C]

36. In purpura

- [A] Hge in deep muscles
- [B] He in mucus membrane
- [C] Haemarthrosis

Answer [A]

37. The best anti-coagulant in blood cultures is

- [A] Sodium oxalates
- [B] Sodium citrates
- [C] Sodium sulphonates
- [D] Heparin

Answer [C]

38. All the following samples are stained with Gram stain except

- [A] Sputum
- [B] Bacteria
- [C] Urine and stool
- [D] Water cultures

Answer [C]

39. Sodium chloride percentage in agar culture is

- [A] 0.58 %
- [B] 0.058 %
- [C] 0.0058 %
- [D] 58.0 %

Answer [A]

40. Agar is characterized by all the following except

- [A] Nutritive
- [B] Un-nutritive
- [C] Freezing point is 42 ° C
- [D] Melting point is 100 ° C

Answer [B]

41. The normal value of sodium in serum is

- [A] 135 – 145 mmol/ml
- [B] 135 – 145 mg/dl
- [C] 135 – 145 mmol/dl
- [D] 135 – 145 mg/ml

Answer [C]

42. Gram stain start with

- [A] Iodine
- [B] Safranin
- [C] Methyl violet
- [D] Crystal green

Answer [C]

43. The causative organism of Toxoplasma is

- [A] Cats
- [B] Dogs
- [C] Fleas
- [D] Lice

Answer [A]

44. Gram negative samples are stained with

- [A] Blue color
- [B] Yellow color
- [C] Red color
- [D] Violet color

Answer [c]

45. The color of Cholera when cultured on TCBS is

- [A] Blue
- [B] Yellow
- [C] Green
- [D] Black

Answer [B]

46. The diameter of micro pore filter used in bacteria filtration is

- [A] 0.22 microns
- [B] 0.033 microns
- [C] 2.2 microns
- [D] 0.45 microns

Answer [A]

47. Leishmania is transported by

- [A] Sand fly
- [B] Mosquitoes
- [C] Flees
- [D] Pugs

Answer [A]

48. To investigate one sample containing floro-carbon we used which microscope

- [A] Light microscope
- [B] Brilliant microscope
- [C] Florescent microscope
- [D] Electron microscope

Answer [C]

49. Virus is similar to live organisms in

- [A] Crystallization
- [B] Movement
- [C] Growth
- [D] Reproduction

Answer [D]

50. The lowest resolution of a microscope is

- [A] 0.2 microns
- [B] 0.02 microns
- [C] 0.002 microns
- [D] 2.0 microns

Answer [A]

51. Which of the following is liver function test

- [A] Liver enzyme
- [B] Serum bilirubin
- [C] Urine bilirubin
- [D] All of the previous

Answer [D]

52. Which of the following causing enlargement of RBCs

- [A] Reticulocytes
- [B] Platelets
- [C] Plasmodium
- [D] Leishmania

Answer [C]

53. The best sample for the culture of children paralysis virus is

- [A] Stool culture

- [B] CSF culture
- [C] Anal culture
- [D] Blood culture

Answer [A]

54. Dry air oven is used to sterilize

- [A] Sand
- [B] Culture media
- [C] Water
- [D] Micro-pore filters

Answer [A]

55. The diabetic patient is going to comma when blood glucose is

- [A] 75 – 95 mg/dl
- [B] Less than 50 mg/dl
- [C] 120 mg/dl
- [D] 160 mg/dl

Answer [B]

56. To differentiate between the two streptococci group which enzyme is used

- [A] Co-amylase
- [B] Catalase
- [C] Amylase
- [D] Kinase

Answer [b]

57. The microscope which used in investigate syphilis is

- [A] Light microscope
- [B] Dark field microscope
- [C] Brilliant microscope
- [D] Ultra violet microscope

Answer [B]

58. The antibiotic disc which differentiate between group A streptococci & other groups is

- [A] Neomycin
- [B] Bacitracin
- [C] Tetracycline
- [D] Erythromycin

Answer [B]

59. All of the following is true for salmonella except

- [A] Contain cilia
- [B] Produce H₂ gas
- [C] Oxygen positive
- [D] Does not ferment lactose

Answer [C]

60. Amylase value is high in the following disease

- [A] Liver
- [B] Muscles
- [C] Salivary glands
- [D] Pancreas diseases
- [E] C and D

61. One jaundice patient has yellow skin and eye led his bilirubin is

- [A] 0.1 mg/dl
- [B] 2.5 mg/dl
- [C] 1.2 mg/dl
- [D] 5.0 mg/dl

Answer [B]

62. Acute diabetic patient has

- [A] Blood sugar more than 150 mg/dl
- [B] Blood sugar more than 180 mg/dl
- [C] Glucose and acetone in urine
- [D] Non of the previous

Answer [C]

63. The normal value of bilirubin is

- [A] Less than 1.0 mg/dl
- [B] 0.2 – 2.0 mg/dl
- [C] Less than 2.0 mg/dl
- [D] Non of 2.0 mg/dl

Answer [A]

64. Diabetic patient has one of the following symptoms

- [A] Acidosis
- [B] Alkalosis
- [C] Dryness
- [D] All of the previous

Answer [D]

65. Insulin is regulating blood sugar by

- [A] Increase the influx of glucose into cells
- [B] Increase the out flux of glucose from cells
- [C] Activate glycogenesis
- [D] A & C

Answer [D]

66. The nutritive substance in culture media is

- [A] Sugar
- [B] Agar
- [C] Ratings
- [D] Starch

Answer [b]

67. The best media for urine culture is

- [A] Agar agar
- [B] Nutrient agar
- [C] Chock let agar
- [D] Clad

Answer [E]

68. The sterilization temperature of autoclave is

- [A] 85 ° C for half an hour

[B] 121 ° C for 15 minutes

[C] 150 ° C for 30 minutes

[D] Non of the above

Answer [B]

69. Shigella soni color on MacConkey and EMB is

- [A] Red
- [B] Pink
- [C] Colorless
- [D] Black

Answer [C]

70. The oil emersion lens is

- [A] 1000 °
- [B] 10 °
- [C] 100 °
- [D] 40 °

Answer [C]

71. The dwarf worm is

- [A] Tenia saginata
- [B] Fasciola
- [C] H.nana
- [D] Schistosoma

Answer [C]

72. All the following compounds are present in gram stain except

- [A] Safranine
- [B] Methyl violet
- [C] Malachite green
- [D] Iodine

Answer [C]

73. The diagnostic stage of amoeba is

- [A] Cyst
- [B] Trophozoite
- [C] A and B
- [D] Non of the previous

Answer [C]

74. To check the intestinal efficacy the following test is done

- [A] Amylase
- [B] Stool fats
- [C] Lipase
- [D] Pepsin

Answer [B]

75. The worm which cause blood in urine is

- [A] Schistosomes haematobian
- [B] Fasciola
- [C] H.nana
- [D] Ascaris

Answer [A]

76. The significant count of bacteria to be inflammation is

- [A] More than 10
- [B] Less than 10^3
- [C] More than 10^3
- [D] Less than 10^3

Answer [A]

77. To investigate gram stained sample we used the following microscope

- [A] Light microscopy
- [B] Brilliant microscope
- [C] Florescent microscope
- [D] Double phase microscope

Answer [A]

78. The most important buffer system in the blood is

- [A] Haemoglobin
- [B] Phosphate system
- [C] Bicarbonate system
- [D] Acetic acid system

Answer [C]

79. All the following bacteria are interobacter except

- [A] E.coli
- [B] Klapsiella
- [C] Proteus
- [D] Non of the previous

Answer [B]

80. In the microscope when using objective lens 10° and eye lens 10° , the magnification power of the microscope is

- [A] 10
- [B] 1000
- [C] 100
- [D] 10000

Answer [C]

81. All the following parameters affecting Gram staining except

- [A] Use conc. H_2SO_4
- [B] Add absolute alcohol after washing
- [C] Delaying the dryness of the slide
- [D] Non of the previous

Answer [A]

82. Glycogen is stored in

- [A] Liver
- [B] Muscles
- [C] A & B
- [D] Non of the previous

Answer [C]

83. Malaria Schizonts are present in

- [A] Leucocytes
- [B] RBCs
- [C] Platelets
- [D] Reticulo-endothelial

Answer [B]

84. Comma of diabetic patient shows

- [A] Glucose greater than 200 mg/dl
- [B] Glucose greater than 200 mg/dl
- [C] Glucose less than 200 mg/dl
- [D] Glucose less than 50 mg/dl

Answer [D]

85. Blood donor in K.S.A. are all of the following except

- [A] Hb% 12.5 - 16
- [B] Free from syphilis
- [C] Jundice free
- [D] One year after delivery

Answer [D]

86. Solidifying agent in culture media is

- [A] Wax
- [B] Starch
- [C] Agar
- [D] Non of the above

Answer [C]

87. Agar which used as a solidifying agent in culture media concentration is

- [A] 1 – 2 %
- [B] 4 – 9 %
- [C] 5 – 9 %
- [D] Non of the above

Answer [a]

88.To sterilizing culture media we use

- [A] Autoclave
- [B] Oven
- [C] Boiling
- [D] Hot plate

Answer [A]

89. Bone matrix can also called

- [A] Osteon
- [B] Fibrous tissue
- [C] Vascular tissue
- [D] Non of the above

Answer [A]

90. Unidirectional movement of WBCs directly to its target is

- [A] Chemotaxis
- [B] Phagocytosis
- [C] Sliding
- [D] Non of the above

nswe
r [B]

91. When focusing a stained smear under oil immersion field the used magnification is

- [A] 10 X
- [B] 20 X
- [C] 40 X
- [D] 100 X

Answer [D]

92. In myocardial infection

- [A] Level of LDH is high
- [B] Level of Alkaline phosphatase is high
- [C] Level of CK-MB is high
- [D] Level of GOT is high

Answer [C]

93. Variation in RBCs size is

- [A] Macrocytosis
- [B] Anisocytosis
- [C] Microcytosis
- [D] Polychromasia

Answer [B]

94. pretransfusion test that is performed using the patient red cells and donor plasma

- [A] Major x-matching
- [B] Minor x-matching
- [C] Antibody screen
- [D] Non of the above

Answer [b]

95. Serum LDH is elevated in

- [A] Cardiac disease
- [B] Hepatic disease
- [C] Renal disease
- [D] Skeletal disease

Answer [A]

96. Elevated sodium is increased in

- [A] Severe dehydration
- [B] Shock
- [C] A & B
- [D] Non of the above

Answer [C]

97. Which test is better to diagnose chronic common bile duct

- [A] SGPT
- [B] SGOT
- [C] Total bilirubin
- [D] ALP

Answer [C]

98. Generally diagnosed by recovery and identification of larva in stool

- [A] S.stercoralis
- [B] Hook worm
- [C] E.vermicularis
- [D] T.trichura

Answer [B]

99. Enlarged RBCs is common in

- [A] P.vivax
- [B] P.malaria
- [C] P.falciparum
- [D] P.ovate

Answer [A]

100. Which of the following is not laying eggs in small intestine

- [A] Hook worm
- [B] Pin worm
- [C] T.trichura
- [D] T.saginata

Answer [C]

101. Blood culture is used to diagnose

- [A] C.tetani
- [B] C.diphtheria
- [C] M.tuberculosis
- [D] Non of the above

Answer [A]

102. How much of water should be added to 500 ml of a solution of 10 % of NaOH to bring it to 7.5%

- [A] 666 ml
- [B] 125 ml
- [C] 166 ml
- [D] 250 ml

Answer [D]

103. Ten micro liters are

- [A] 0.01 L
- [B] 0.001 L
- [C] 0.0001 L
- [D] Non of the above

Answer [D]

104. While using the pregnancy test we are measuring

- [A] Beta HCG
- [B] Total HCG
- [C] Beta HCG and LH
- [D] Beta HCG and FSH

Answer [A]

105. Abnormal constituents of urine include

- [A] Urea
- [B] Glucose
- [C] Cholesterol
- [D] Proteins

Answer [B]

106. With age the renal threshold for glucose

- [A] Increased
- [B] Decreased
- [C] Does not changed
- [D] Non of the above

Answer [D]

107. Most of the concentrations are calculated using a factor this factor is

- [A] Standard absorption / standard concentration
- [B] Standard concentration / standard absorption
- [C] Standard concentration x standard absorption
- [D] Non of the above

Answer [D]

108. Calibrator sera are

- [A] Primary standards
- [B] Secondary standards
- [C] Tertiary standards
- [D] Internal standards

Answer [B]

109. A buffer made of

- [A] A strong acid with a strong salt
- [B] A strong acid with a weak salt
- [C] A weak acid with a weak salt
- [D] A weak acid with a strong salt

Answer [C]

110. A standard micro plates in ELISA test has

- [A] 96 wells
- [B] 98 wells
- [C] 92 wells
- [D] 94 wells

Answer [A]

111. The enzyme in ELISA testing is present in the

- [A] Conjugate
- [B] Micro plate
- [C] Buffer
- [D] Non of the above

Answer [A]

112. Antigen antibody complex are

- [A] Weak bound
- [B] Strong bound
- [C] Not bound at all
- [D] Non of the above

Answer [B]

113. The washing is a must in all heterogeneous ELISA technique because

- [A] It removes the excess binding
- [B] Increase the specificity
- [C] Increase the sensitivity

- [D] Non of the above

Answer [A]

114. The label in ELISA tests is

- [A] Enzyme
- [B] Antibody
- [C] Antigen
- [D] Radio active substance

Answer [A]

115. The difference between plasma and serum is that plasma

- [A] Contains fibrinogen
- [B] Does not contain fibrinogen
- [C] Has more water
- [D] Has less water

Answer [A]

116. Five ml of colored solution has an absorbance of 0.500 nm , the absorbance of 10 ml of the

same solution is

- [A] 1.000 nm
- [B] 0.500 nm
- [C] 0.250 nm
- [D] 0.250 nm

Answer [B]

117. Plasma or serum should be separated at the earliest for estimation of glucose because

- [A] The glucose value decreases with time
- [B] Glucose value increases with time
- [C] Lysis of blood will occur
- [D] Non of the above

Answer [A]

118. Sensitivity and specificity are

- [A] Directly related
- [B] Reversely related
- [C] They mean the same
- [D] Non of the above

Answer [B]

119. A dichromatic analysis is carried to increase

- [A] Specificity
- [B] Sensitivity
- [C] Linearity
- [D] Non of the above

Answer []

120. Cause of high serum bilirubin are

- [A] Overload on liver
- [B] Cholestasis
- [C] Haemolysis
- [D] All of the above

A

nswe
r [D]

121. Polio myelitis is transmitted through

- [A] Feco-oral
- [B] Respiration
- [C] Skin
- [D] All of the above

Answer [A]

122. Malaria does not grow in

- [A] Packed RBCs
- [B] EDTA blood
- [C] Plasma
- [D] Heparinized blood

Answer [C]

123. Serious organism that causes food poisoning

- [A] Staph. albus
- [B] Salmonella enteritidis
- [C] Clostridium sp.
- [D] Salmonella typhi

Answer [B]

124. Vaginal discharge occurs with except

- [A] Gardenella
- [B] Trichomonous vaginalis
- [C] Candida
- [D] Gonorrhea

Answer [C]

125. Haemophilia man married to normal woman the incidence of his children is

- [A] Carried male
- [B] Carried female
- [C] Diseased male
- [D] Diseased female
- [E] Normal

Answer [B]

126. Which of the following cause UTI and it is indole positive

- [A] Klebsiella
- [B] Staphylococcus
- [C] E.coli
- [D] Salmonella

Answer [C]

127. Blood transfusion can transmit

- [A] HIV
- [B] CMV
- [C] Hepatitis B virus
- [D] All of the above

Answer [D]

128. ADH is secreted from

- [A] Posterior pituitary
- [B] Anterior pituitary
- [C] Hypothalamus
- [D] Thyroid gland

Answer [C]

129. Glycosylated hemoglobin of diabetic patient is important for

- [A] Long term follow up
- [B] Short follow up
- [C] Patient has to come fasting
- [D] Non of the above

Answer [A]

130. For glucose tolerance test

- [A] You have collect 5 blood samples only
- [B] You have collect 5 urine samples only
- [C] You have collect 5 blood samples and 5 urine samples
- [D] You have collect 4 blood samples and 4 urine samples

Answer [C]

131. One of the following heart enzymes is measured after 4 – 8 hours of chest pain

- [A] GPT
- [B] GOT
- [C] CPK
- [D] LDH

Answer [C]

132. Cardiac LDH can be substituted by one of the following

- [A] GOT
- [B] GPT
- [C] HBDH
- [D] CPK

Answer [D]

133. Light affects one of the following

- [A] Glucose
- [B] Bilirubin
- [C] Urea
- [D] All of the above
- [E] Non of the above

Answer [B]

134. One of the following is specific diagnostic liver enzyme

- [A] GPT
- [B] GOT
- [C] LDH
- [D] CPK
- [E] Alkaline phosphatase

Answer [A]

135. One of the following is specific diagnostic enzyme

- [A] GGT
- [B] GOT
- [C] LDH
- [D] CPK

Answer [C]

136. Alkaline phosphatase is

- [A] Liver enzyme
- [B] Bone enzyme
- [C] Placental enzyme
- [D] All of the above
- [E] Non of the above

Answer [D]

137. One of the following is pancreatic enzyme

- [A] CPK
- [B] Lipase
- [C] GOT
- [D] Acid phosphatase

Answer [B]

138. One of the following is pancreatic enzyme

- [A] Amylase
- [B] GOT
- [C] LDH
- [D] CPK

Answer [A]

139. Saliva is rich in

- [A] LDH
- [B] GPT
- [C] Amylase
- [D] Alkaline phosphatase

Answer [C]

140. The following enzyme is important before anesthesia

- [A] Alkaline phosphatase
- [B] LDH
- [C] Acid phosphatase
- [D] Pseudocholine esterase

Answer [d]

141. Acid phosphatase is

- [A] Liver enzyme
- [B] Prostatic enzyme
- [C] Heart enzyme
- [D] All of the above

Answer [B]

142. In uric acid estimation

- [A] Patient has to come fasting
- [B] Uric acid is affected by carbohydrate meal
- [C] Non need for fasting
- [D] Non of the above

Answer [A]

143. Metabolic gout is different from renal gout in

- [A] Serum uric acid level
- [B] Blood urea level
- [C] Urine uric acid level
- [D] Plasma total protein level

Answer [A]

144. All the following biochemical tests are affected by meal except

- [A] Uric acid
- [B] Creatinine
- [C] Albumin
- [D] Glucose

Answer [B]

145. Sodium is the main

- [A] Intracellular anion
- [B] Extracellular cation
- [C] Intracellular cation
- [D] Extracellular anion

Answer [B]

146. Potassium is the main

- [A] Intracellular anion
- [B] Extracellular cation
- [C] Intracellular cation
- [D] Extracellular anion

Answer [C]

147. One of the following electrolyte is more affected by hemolysis

- [A] Calcium
- [B] Sodium
- [C] Magnesium
- [D] Potassium

Answer [D]

148. In blood glucose estimation the following is required

- [A] Fasting blood glucose
- [B] Glycosylated Hb
- [C] Post prandial blood glucose
- [D] Fructoseamine
- [E] All of the above

Answer [E]

149. The best kidney function test is

- [A] Total protein
- [B] Urea
- [C] Creatinine
- [D] Creatinine clearance

Answer [D]

150. For GGT in a child , the dose of glucose is

- [A] 50 gm
- [B] 100 mg
- [C] 75 gm
- [D] Non of the above

151. For GGT in a child , the dose of glucose is

- [A] 30 mg
- [B] 15 gm

A

nswe
r [D]

[C] 30 gm

[D] 75 gm

Answer []

152. Random blood glucose

[A] Is used to justify blood glucose

[B] Give an idea about blood glucose in urgent cases

[C] Patient to fast

[D] Non of the above

Answer [A]

153. Immunoglobulin is

[A] Synthesized in liver

[B] γ - globulin

[C] α - globulin

[D] β - globulin

Answer [A]

154. Ig-M is

[A] Acute immunoglobulin

[B] Immunoglobulin in allergic condition

[C] Chronic immunoglobulin

[D] α - globulin

Answer [A]

155. Exogenous triglyceride is carried on

[A] VLDL

[B] Chylomicron

[C] LDL

[D] HDL

Answer [A]

156. Harmful cholesterol is carried on

[A] VLDL

[B] Chylomicron

[C] LDL

[D] HDL

Answer [C]

157. Useful cholesterol is carried on

[A] VLDL

[B] Chylomicron

[C] LDL

[D] HDL

Answer [D]

158. Intramuscular injection increase the activity of the following enzyme

[A] GPT

[B] CPK

[C] CPK-MB

[D] LDH

Answer [C]

159. Muscular exercise increase the activity of the following enzyme

[A] CPK-MB

[B] GOT

[C] Total CPK

[D] Alkaline phosphatase

Answer [A]

160. For lipid investigation patient has to come fasting for

[A] 4 – 6 hours

[B] 12 – 14 hours

[C] 6 – 8 hours

[D] No need for fasting

Answer [B]

161. Chylomicron is

[A] The diameter of RBCs

[B] Size of one lipid molecule

[C] One of lipoproteins

[D] All of the above

Answer [C]

162. Glucose-6-phosphatase dehydrogenase is

[A] Cardiac enzyme

[B] Pancreatic enzyme

[C] AMB pathway enzyme

[D] Prostatic enzyme

Answer [C]

163. Estimation of G6PDH is a test to

[A] Measure blood glucose

[B] To diagnose hemolytic anemia

[C] To diagnostic myocardial infraction

[D] To diagnostic pancreatic disease

Answer [B]

164. To measure G6PDH we use

[A] Plasma

[B] Whole blood

[C] Serum

[D] All of the above

Answer [B]

165. At what temperature degree blood is stored in blood bank

[A] 2 – 4 ° C

[B] 4 – 8 ° C

[C] 8 – 12 ° C

[D] Non of the above

Answer [A]

166. Amoeba move by

[A] Pseudopodia

[B] Cilia

[C] Flagella

[D] Non of the above

Answer [A]

167. Trypanosoma move by

[A] Pseudopodia

- [B] Cilia
- [C] Flagella
- [D] Non of the above

Answer [C]

168. Giarda move by

- [A] Pseudopodia
- [B] Cilia
- [C] Flagella
- [D] Non of the above

Answer [B]

169. Entamoeba histolytica cyst is appear in which part of gastrointestinal tract

- [A] Stomach
- [B] Small intestine
- [C] Large intestine
- [D] Non of the above

Answer [B]

170. Sand fly transmits which disease

- [A] Lishmaniasis
- [B] Filariasis
- [C] Amoebaiasis
- [D] Non of the above

Answer [A]

171. By eating uncooked meet a person can infected with

- [A] Tap worm
- [B] Hook worm
- [C] Round worm
- [D] Non of the above

Answer [A]

172. One of the following is capsulated bacteria

- [A] Klbsiella
- [B] E.coli
- [C] Streptococcus
- [D] Staphylococcus aureus

Answer [C]

173. One of the following is Gram positive bacilli

- [A] Anthrax
- [B] Niesseriae
- [C] E.coli
- [D] Non of the above

Answer [A]

174. The following parasite can seen in the blood

- [A] Malaria
- [B] Filaria
- [C] Trypanosoma
- [D] Lishmania
- [E] All of the above

Answer [E]

175. The following parasite can seen in urine

- [A] Schistosoma hematobium

- [B] Filaria
- [C] Trypanosoma
- [D] Lishmania

Answer [A]

176. Female anopheles transmits which disease

- [A] Lishmaniasis
- [B] Filariasis
- [C] Amoebaiasis
- [D] Malaria

Answer [D]

177. Imric reaction of E.coli is

- [A] + + - -
- [B] - - + +
- [C] + - + -
- [D] + - - +

Answer [A]

178. Trophozoite of amoeba which engulfs RBCs is

- [A] E.coli
- [B] H.nana
- [C] E.histolytica
- [D] Giardia lamblia

Answer [C]

179. Diagnosis of G.lambilia is by

- [A] Cyst
- [B] Trophozoite
- [C] A & B
- [D] Non of the above

Answer [C]

180. Tuberculosis is acid fast because

- [A] Stained in acid media
- [B] Can not be discolored in acid media
- [C] A & B
- [D] Non of the above

A

nswe
r [C]

181. Na , K and CL are best measures with

- [A] Spectrophotometer
- [B] Flame photometer
- [C] Elisa
- [D] RIA

Answer [B]

182. When using normal saline that is mean the concentration of sodium chloride is

- [A] 0.85 gm %
- [B] 0.95 gm %
- [C] 1.0 GM %
- [D] Non of the above

Answer [A]

Parasitology

- parasite in blood :-

1. Trypanosoma .

2. Malaria .

3. Leishmania .

4. Toxoplasmosis .

- parasite in blood :-

1. Trypanosoma :-

- trypanosome habitat blood .

- Intermediate = the bite tse tse fly .

- infection stage = stum by trypanosome .

- Diagnostic by = trypanosome in blood .

- trypanosome move by flagella .

- trypanosome type :-

1. trypanosome cruzi : cause chagas disease .

2. trypanosome gambienses : cause sleeping sickness .

3. trypanosome rhodesienses : cause sleeping sickness .

2. Malaria :-

- Malaria habitat blood .

- Intermediate = female mosquito .

- infection stage = sporozoites .

- in malaria RBC are lysis .

- malaria detection by Thick blood film .

- type of malaria :-

1. Plasmodium vivax = cause Enlarges RBC .

2. Plasmodium falciparum = cause malignant malaria . is most abundant prevalence.

3. Plasmodium malariae .

4. Plasmodium ovale.

3. Leishmania :-

- Leishmania is intercellular parasite .

- Leishmania cause tow disease :- Visceral Leishmania and cutaneous Leishmania .

- transmits by = sand fly .

- infection stage = larva .

- use stain fields stain and gimsa stain .

- Leishmania tropica cause oriental sore disease.

- Leishmania donovani { Visceral Leishmania } cause kala-azar and black fever .

4. Toxoplasmosis :-

- diagnosis by = serology test .

- intermediate host = human .

- man may acquire from cats .

* - Toxoplasma gondii :-

- non motile protozoa .

- this organism multiply intracellular parasite.

- can cause fetal cerebral infection .

- the definitive host is animal.

- human is not definitive host .

- parasite in urine :-

1. Schistosoma haematobium :-

- habitat pelvic plexus .

- infection stage = cercaria .

- Diagnostic stage = egg in urine .

- mode of infection = cercaria penetrates skin .

- cause Egyptian haematuria .

2. Trichomonas vaginalis :-

- habitat = vagina , urethra , prostate .

- infection stage = trophozoite .

- diagnosis by = trophozoite in vagina , prostatic secretion , and urine .

- can be detected in vaginal and urethral discharge .

- protozoa in sexual reproduction .

- parasite in stool :-

1. Schistosoma masoni :-

- habitat = Mesenteric plexus .

- infection stage = cercaria .

- mode of infection = cercaria penetrates skin .

- diagnostic stage = Egg in Faeces .

2. Taenia saginata :-

- habitat = small intestine .

- infection stage = cysticercus bovis .

- mode of infection = ingestion under****ed beef .

- diagnostic stage = Egg in Faeces .

3. Giardia lamblia :-

- habitat = duodenum .

- infection stage = cyst .

- diagnostic stage = trophozoite and cyst in faeces .

4. Hymenolepis nana { dwarf worm } :-

- habitat = small intestine .

- infection stage = cysticercoid .

- mode of infection = ingestion of egg or insect .

- diagnostic stage = Egg in Faeces .

5. Entamoeba histolytica :-

- habitat = large intestine .
- infection stage = mature cyst .
- mode of infection = ingestion of mature cyst .
- diagnostic stage = trophozoite and cyst in faeces .

6. Enterobius vermicularis :-

- habitat = large intestine .
- infection stage = Embryonated egg .
- Diagnostic stage = Egg on perianal region.

7. Ascaris lumbricoides :-

- habitat = small intestine .
- infection stage = Embryonated egg or larva
- mode of infection = swallowing water or vegetables .
- diagnostic stage = fertilized Egg in Faeces.

8. Diphylobthrium latum :-

- habitat = small intestine .
- infection stage = plerocercoid larva in fish muscle .
- mode of infection = ingestion of undercooked fish .
- diagnostic stage = Egg in Faeces .

8. fasciola :-

- habitat = bile duct of man .
- infection stage = encysted cercaria on grass or in water .
- mode of infection = ingestion of raw vegetation or water .
- diagnostic stage = Egg in Faeces .

9. Heterophyes heterophyes :-

- habitat = small intestine .
- infection stage = encysted cercaria in fish muscle .
- mode of infection = ingestion undercooked fish .
- diagnostic stage = Egg in Faeces .

10. Trichuris trichiura :-

- habitat = large intestine { caecum } .

- infection stage = Embryonated egg .

- mode of infection = swallowing water or vegetables .

- diagnostic stage = Egg in Faeces .

10. Hookworms :-

- habitat = small intestine .
- infection stage = filariform larva .
- mode of infection = when the filariform larva penetrates his intact skin or mucous membrane of the mouth .
- diagnostic stage = Egg in Faeces .

11. Strongyloides stercoralis :-

- habitat = small intestine .
- infection stage = Embryonated egg .
- mode of infection = when the filariform larva penetrates his intact skin or mucous membrane of the mouth .
- diagnostic stage = Rhabditiform larva in Faeces .

0202 قتيهلاب تاج يلا ةلسلا مأ

1. . chagas disease caused by ?

Trypanosome cruzi .

2. . malaria diagnosis by ?

Thick blood film .

3. taenia saginata diagnosis by ?

Egg in stool .

4. Ascaris lumbricoides infection stage ?

Embryonated egg .

5. Rice water stool can be caused by ?

Vibrio cholera .

6. lactobacilli isolated in ?

Stool .

7. yellow brown barrel-shaped egg , colorless produce plug polar is ?

Trichuris trichiura

8. parasite cause cerebral malaria ?

Plasmodium falciparum .

9. infection stage of ancylostoma ?

Larva

10. transmitte through sexual intercourse ?

Trichomonas vaginalis .

12. human scabies diagnose by ?

skin scraping of lesion .

13 - Cause Kala- azar:

a- leishmania tropica

b- leishmania braziliense c- leishmania donovani

d- leishmania mexicana

14- cause oriental sore:

a- plasmodium ovale b- leishmania tropica

c- leishmania donovani

d- trypanosoma rhodesiense

15- infective stage of S.mansoni

A- embryoated egg

B- larva

C- cercaia

D- oocyst

16- The cause of sleeping sickness:

a- trypanosoma gambiense b- trypanosoma cruzi

c- trypanosoma rhodesiense d- (a) & (c)

- Blood of microfilaria infection diagnostic with:

- Intracellular parasite

- Not find in the flam photometer: Photo

- Presence one from this substance in urine detect abnormal condition

- Use for clean slide

- Meaning of calcitonin

- Pyrimdin base

- One of the above not present in Diabetic Mellitus coma

- In a blood group the Ab in serum is

- Most sever (serious) malaria infection caused by:

- Alkline phosphates is the important enzme to detect function in:

- Steilization by the oven is best accomplished at:

- What practical cardilipin is applicable in laboratory work:

- Amaylase value is high in the following disease:

- Miligram >>> 10^{-3} g

- Rbcs male normal value is:

- Anti-coagulante is better for blood agar:

- One is not found (involve) in colormetric:

- The smallest molecular weight Ig is:

- Function of pili of bacteria:

- Hb A is consisting of:

- Direct ant-antibody test used to detect:

- Detection of malaria parasite with persent at RBCs:

- A child diagnose show scarlet fever the cause is :

- Increase of hemolytic jaundice one is not likely to be found:

- One is not true about acid: Turn limus paper to blue

- One is not true about alkaline: Turn limus paper to red

- Iodine stain entamobae cyst used to detect (diagnose): Nuclei

- Most common method (technique) used to detect hormone amount in the laboratory:

- Leukocyte responsible for cellular immunity:

- One stage prothrombin time used to detect (diagnose) disorders in:

- Leukocyte responsible for response to parasite & allergic infection:

100 Question in Advance Bacteriology

Chose the best answer

1- infection my be caused by microorganisms through:

- a- hair
- b- nail
- c- mouth**
- d- all of the above

2- organisms can penetrate the skin through

- a- cuts**
- b- teach
- c- a & b
- d- non of the above

3- infection through the mouth caused by

a- eating food in the laboratory

- b- inhalation
- c- playing food boll
- d- all of the above

4- infection of the general public caused by

a- escape of m.o during the transport of infectious specimens

- b- incineration infectious waste from laboratory
- c- autoclaving bacterial culture
- d- non of the above

5- pathogens are accidentally ingested through:

a- contaminated fingers

- b- hands are washed and clean after handling specimen
- c- clean water
- d- non of the above

6- pathogen are accidentally injected through:

- a- uncontaminated needle stick
- b- close covered skin wounds.
- c- injury from broken contaminated glassware.**
- d- all of the above

7- pathogen are inhaled when:

a- vigorously dispensing or pouring infectious fluid.

- b- eating food in the laboratory
- c- ingested microorganisms during mouth-pipetting
- d- non of above

8- infective microorganisms one of its classification is:

- a- risk group 10
- b- risk group 6
- c- risk group 4**
- d- a & c

9- risk group 1 present as:

- a- moderate risk
- b- low risk**
- c- high risk
- d- non of the above

10- risk group 4 is high risk to the :

- a- laboratory worker only
- b- community only
- c- a & b**
- d- non of the above

11- prevention of laboratory infection depends on understanding of :

- a- routes by which infections are acquired

- b- which organisms are the most hazardous
- c- which techniques are the most hazardous

d- all of the above

12- working safely done by:

- a- good technique
- b- good practice
- c- good personal hygiene
- d- all of the above**

13- careless handling of specimens can result in the:

- a- un contaminated fingers
- b- contamination of working surfaces**
- c- formation of good smile
- d- all of the above

14- acquiring infection by mouth- pipetting can occur when:

- a- pathogen in fluid accidentally sucked up into mouth
- b- a pipetting with a contaminated end is put in the mouth
- c- a pipetting with a chipped end causes cuts to the fingers or lips
- d- all of the above**

15- disposal of sputum done by

- a- using autoclaving at 121°C for 15 minutes**
- b- boiling 2 minutes
- c- a & b
- d- non of the above

16- disposal of swabs done by

- a- immerse in 5% phenolic disinfection**
- b- put it under the sun
- c- a & b
- d- non of the above

17- disposal of cultures done by

- a- autoclaving at 121°C**
- b- boiling
- c- incineration
- d- non of the above

18- container of stool specimen must be

- a- clean**
- b- dirty
- c- full of antiseptics
- d- all of the above

19- dysenteric and watery stool must reach laboratory within

- a- 15 minutes**
- b- 30 minutes
- c- 90 minutes
- d- 50 minutes

20- stool concentration techniques need for:

- a- a few eggs of Schistosoma species
- b- detect Strongloid larva
- c- whether treatment has been successful
- d- all of the above**

21- macroscopical appearance of stool specimens are:

- a- presence of virus
- b- presence of fungal
- c- presence of blood, mucus, and pus**
- d- all of the above

22- causes of blood and mucus in stool may be found in:

- a- amoebic dysentery
- b- fungal infection
- c- malaria infection
- d- non of the above

23- causes of presence of pus in stool found when:

- a- there is inflammation of the intestinal
- b- patients with bacillary dysentery
- c- patients with intestinal schistosomiasis
- d- a & b

24- - causes of pale colored of stool specimens are

- a- patients with obstructive jaundice
- b- patients with bacillary dysentery
- c- patients with intestinal schistosomiasis
- d- non of the above

25- type of urine collect for microbiology lab is:

- a- fresh, cleanly midstream urine
- b- fresh, cleanly first stream urine
- c- fresh, cleanly last stream urine
- d- fresh, cleanly all stream urine

26- report the larva and egg found in the stool by scanty means:

- 1- 11- 20 per preparation
- 2- 21-40 per preparation
- 3- 1-3 per preparation
- 4- over 40 per preparation

27- urine sample should passed at early morning because:

- 1- urine contain highest concentration of bacteria and substances
- 2- urine contain lowers concentration of bacteria and substances
- 3- better of diagnosis in lab
- 4- non of the above

28- 24 hour urine sample collect for diagnosis of:

- 1- eye infection
- 2- skin infection
- 3- hormones and protein
- 4- mouth infection

29- method of collection 24 hour urine sample:

- a- start at 08.00 hour
- b- give patient large 2 liter capacity bottle
- c- a & b
- d- non of the above

30- female patient should be instruct to collect urine by:

- a- dose not clean the area around the urethra opening with clean water
- b- clean the area around the urethra opening with clean water
- c- pass first stream urine
- d- non of the above

Chose the best answer

31- if immediate delivery to the laboratory is not possible, urine should be:

a- refrigerated at 4C⁰

- b- discard the urine
- c- boiling it
- d- non of the above

32- sputum best collected in the ---

- a- evening
- b- midnight
- c- morning
- d- midday

33- young child when it is not possible to obtain sputum we do----

- a- gastric wash
- 2- mouth swab
- c- eye biopsy
- d- stool sample

34- if pneumonia is suspected, deliver the sputum as little delay because:

- a- organism can infected community
- b- organism such as *S.pneumoniae* require culturing as soon as possible
- c- sample may contaminated by urine of the patient
- d- non of the above

35- refrigeration of M.tuberculosis sample can cause:

- a- increase multiplication of commensals
- b- slow down the multiplication of commensals
- c- kills the commensals
- d- non of the above

36- M.tuberculosis diagnosis by make a smear of sputum stain by:

- 1- ziehl-neelsen stain
- 2- gram stain
- 3- negative stain
- 4- capsule stain

37- always part of sputum selected :

- a- ready part
- b- black part
- c- purulent part
- d- slivery part

38- patient with streptococcal sore throat, the tonsils may be covered with----

- a- red spots
- b- green spots
- c- white spots
- d- yellow spots

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- a- serial cotton swab
- b- needle

- c- forceps
- d- non of the above

42- patient with throat infection must not be treated ----- hour before

- a- 2 hour
- b- 3 hour
- c- 6 hour**
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43- microorganism cause spoiling to the food by:'

- a- cause various type of organoleptic**
- b- cause blacking of food
- c- multiplication on food
- d- non of the above

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- a- replication in food
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- c- production toxin in food
- d- non of the above

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- a- when pathogenic microorganisms in the food are ingested
- b- when toxic product of pathogenic microorganism in the food are ingested
- c- a & b**
- d- non of the above

46- presence of pathogens in foods can determined by using:

- a- stain
- b- biochemical test
- c- standard plate count**
- d- serological test

47- culture techniques used to:

- a- isolate bacteria**
- b- distraction of bacteria
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- d- non of the above

48- ingredients which can be found in culture media are

- a- peptone
- b- meat extracts
- c- yeast extract
- d- all of the above**

49- there are ----- type of culture media:

- a- seven
- b- five**
- c- ten
- d- two

50- basic media use to:

- 1- support the grow of microorganism**
- 2- slow down grow of microorganism
- 3- dose not effect grow of microorganism
- 4- non of the above

51- media are enriched by using:

- a- water
- b- lipid
- c- whole blood**
- d- non of the above

52- selective media contain substance that:

- a- increase grows of bacteria

b- prevent or slow down grows of bacteria

- c- dose not effect grows of bacteria

53- example of selective media is:

- a- blood agar

b- XLD agar

- c- nutrient agar
- d- non of the above

54- differential media use to differentiate microorganism by add----- to the media

- a- water
- b- protein
- c- dyes & indicator**
- d- lipid

55- transport media used to:

- a- prevent over grows of commensals
- b- ensure survival of pathogen
- c- a & b**
- d- non of the above

56- the forms of culture media are:

- a- solid, semisolid and fluid**
- b- gas and fluid
- c- solid and gas
- d- non of the above

57- grows and multiplication of bacteria in fluid describe in----- stage

- a- 10
- b- 4**
- c- 100
- d- 8

58- inoculation of culture media must be in aseptic technique to:

- a- prevent contamination**
- b- prevent grows of pathogenic bacteria
- c- increase number of bacteria
- d- non of the above

59- provide of single colonies when inoculation of media in Petri dishes used to:

- a- identification of bacteria
- b- see whether a culture is pure or mixed
- c- a & b**
- d- non of the above

60- pathogenic bacteria incubated in:

- a- 50°C
- b- 60°C
- c- 37°C**
- d- 90°C

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MICROBIOLOGY MCQS

GENERAL

1. ****The difference between plasma and serum is that plasma:	1. (a) Plasma contains fibrinogen which is consumed during the clot formation to separate serum.
2. *****Best way to separate the serum?	2. (a) leave the blood to clot at R.T for 1 hr, then centrifuge
3. **Point of care testing means?	3. (c) Take care in testing
4. ****Error in the result is expected in which case?	4. (c) Oxalate is a divalent cation chelator.
5. **Cardiac anatomical anomalies associated with Fallot tetralogy include all of the following except:	5. (b) Fallot's tetralogy is composed of PS+VSD + Rt aorta + RVH.
6. Hemolysed blood is unsuitable for performing which tests?	6. Hemolysis is visible at Hb > 3.1 µmol/L It increases LDH, K, ACP, cholesterol, ALT and AST. Hemolysis doesn't increase serum albumin, bilirubin, ALP, amylase, lipase, Ca, Cl, P, Mg, Na, creatinine, glucose, UA or urea.
7. ****Hemolysis causes?	7. a.
8. After hemolysis:	8.
9. Effects of fasting	9. Prolonged fasting increases TG, glycerol, FFA but not cholesterol.

10. ****Fluoride is used to get samples for?

- a. Blood sugar
- b. Coagulation
- c. Electrolyte
- d. CBC.

11. ***Anticoagulant used for glucose is:

12. **Changes in blood stored more than 5 hrs at room temp. include?

- a. Decreased glucose & increased lactate.
- b. Increased glucose & decreased lactate
- c. Failure of Na & K pump,

14. Plasma or serum should be separated at the earliest for the estimation of glucose because:

- a. The glucose values decreases with time.
- b. Glucose value increases with time.
- c. Lysis of blood occurs.

10. a. Blood sugar

11. Fluoride

13. (a) Storage of blood has the following effects:
 1- $\downarrow$ CO₂, ACP & Glucose
 2- $\uparrow$ pH & ammonia
 3- Changes in RBC permeability $\rightarrow \uparrow$ K,P &Mg
 4- Na-K pump is inhibited at 4 °c but not at 25°C. leading to $\uparrow$ K in refrigerated samples.
 5- Phosphorylation $\rightarrow \uparrow$ P released from organic P.
 6- Loss of enzyme activity.
 7- Light $\rightarrow \downarrow$ bilirubin, δ ALA and porphyrins.

14. a. Continued glycolysis cause glucose values to decreases with time unless cells are separated.

- Best place to put a needle for blood collection is puncture proof container.

IMMUNOLOGY

1. **Antigen & antibody reaction is? a. Agglutination b. precipitation c. immunodiffusion,	1. b. Immunodiffusion is the process of diffusion in semisolid media to detect amount of antibody to neutralize antigen. Agglutination necessitates an indicator system e.g. RBCs or latex particles.
2. **Hook effect in immune assay occurs because the concentration of antibodies in the well is? a. Too low b. Too high c. Optimum	2. b. The hook effect is the result of very high antigen levels giving lower than expected result in a double antibody sandwich assay.
3. **Antigen & antibody complex are? a. Weakly bound b. strongly bound c. no bound at all.	3. a. weakly bound
4. ***Reaginic antibody is: a. IgG b. IgM c. IgD d. IgE	4. d. Reagenic or anaphylactic mechanism refers to events following combination of antigen with IgE molecule specific for it upon the surface of mast cells.
5. Arthus phenomenon results from: a. Antigen excess. b. Antibody excess. c. Antigen and antibody in equal proportions.	5. ??b. Antibody excess. In arthus phenomenon, a high antigen concentration is attacked by a high antibody concentration → excess antigen antibody complexes followed by local tissue damage.
6. **Lysis in complement fixation test means the test is? a. Positive b. negative c. invalid.	6. b. In CFT, absence of hemolysis indicates that complement was fixed in antigen antibody reaction so specific antibody was present.
7. **All tube for serial dilution for CRP test contain 0.5ml of saline & 0.5ml of serum is added to Tube 1 & 0.5ml is transferred through the row of tubes & agglutination is demonstrate in tube 7, If sensitivity of the test is 6mg/l the concentration of CRP in serum is? a. 36mg b. 42mg c. 6mg d. 48mg e. 384mg..	7. None (something missed in the question). The titer in the 7 th tube = $2^7 = 128$ So, the concentration of CRP= $128 \times 6 = 768\text{mg}$.

8. ****CRP is tested because it is increased in?**
 - a. Bacterial infection
 - b. viral infection
 - c. other infection.
9. **In infectious mononucleosis antibodies are?**

10. *******Which of the following reagent test for syphilis?**
 - a. VDRL
 - b. TPHA
 - c. TPT
11. ****Antigenic detection is useful in diagnosis of all of the following except:**
 - a. B hemolytic Streptococci.
 - b. H. influenza.
 - c. Listeria monocytogenes.
31. ******Antigenic methods are useful in diagnosis of all of the following causes of meningitis except:**
 - a. Strept B hemolyticus.
 - b. H. influenza
 - c. E. coli
 - e. listeria
12. ****Autoimmune disease contain all except?**
 - a. Lesion in B/M
 - b. low complement level in serum
 - c. immune complex in serum
 - d. low Ig in serum.
13. *****Tuberculin test is type.**
14. **Cell mediated immunity =**
15. ******Which of the following detects type IV cell mediated immunity?**
16. *****Mantoux test is a method for**
17. **Immune complex deposits.**

Immunology

8.	b. CRP is a sensitive non specific indicator of acute injury, bacterial infection or inflammation.
9.	Anti (I)
10.	a. Reagin = Antibody against cardiolipin. Reagenic tests are VDRL, RPR and Wassermann (CFT).
11.	c. Because L. monocytogenes is an intracellular organism.
31.	
12.	d. In AI diseases there is ↑ autoantibodies → immune complex formation → complement fixation → ↓ complement. Also there is cell death or altered function.
13.	IV hypersensitivity
14.	Candida Defective CMI → candidiasis.
15.	Tuberculin
16.	Tuberculin
17.	

MICROBIOLOGY

ANTIBIOTICS, ANTIMICROBIALS, STERILIZATION AND DISINFECTION

.1 ****Antibiotic used for each organism are**

- a. Pneumonia
- b. Legionella
- c. S. pyogens
- d. H.influenza.
- e. P. enterocolitis

.2 ****Tetracycline is identical in action with –**

.3 ****Which is effective against penicillinase producing organism.**

.4 **The best chemical disinfectant in a TB lab?**

- a. Glutaraldehyde
- b. ethanol
- c. phenol
- d. hypochlorate,

.5 *****What is lab safety level you will employ for the culture of brucella?**

- a. Routine precaution
- b. bio safety level 1,
- c. bio safety level 2
- d. bio safety level 3
- e. no specific measure

.6 **β -lactamase resistant penicillin for staph**

.7 *******Sterility is achieved by:**

- a. Pasteurization.
- b. Disinfection.
- c. asepsis.
- d. All of the above.
- e. None of the above

1.	.	a.-penicillin b-erythrocin c. penicillin d-ceftriaxone e- vancomycin															
2.	Aminoglycoside	Aminoglycosides act on 30s ribosomal subunit.as tetracyclines.															
3.	Nfcillin or dicloxacillin.																
4.	a. Phenol, although effective against TB, is rarely used being too caustic. Ethanol is not effective (TB are alcohol resistant). Glutaraldehyde is used to sterilize respiratory equipments and is effective against TB.																
5.	d. Biosafety levels are designed according to risk group of the lab;																
	<table> <tr> <th>Risk group</th><th>Description</th><th>Biosafety level</th></tr> <tr> <td>1</td><td>Organisms are low risk to lab workers and community (common organisms)</td><td>1</td></tr> <tr> <td>2</td><td>Moderate risk to lab workers limited risk to community e.g. staph, strept., vibrio</td><td>2</td></tr> <tr> <td>3</td><td>High risk to lab workers, low risk to community (don't spread rapidly) e.g. brucella, TB, Salmonella</td><td>3</td></tr> <tr> <td>4</td><td>Viruses, high risk to lab and community</td><td>4</td></tr> </table>	Risk group	Description	Biosafety level	1	Organisms are low risk to lab workers and community (common organisms)	1	2	Moderate risk to lab workers limited risk to community e.g. staph, strept., vibrio	2	3	High risk to lab workers, low risk to community (don't spread rapidly) e.g. brucella, TB, Salmonella	3	4	Viruses, high risk to lab and community	4	
Risk group	Description	Biosafety level															
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3	High risk to lab workers, low risk to community (don't spread rapidly) e.g. brucella, TB, Salmonella	3															
4	Viruses, high risk to lab and community	4															
6.	Cloxacillin.																
7.	c. Sterilization means killing or removal of all microorganisms including spores e.g. autoclaving, ethylene oxide, filtration. Disinfection means killing of many (not all) microorganisms e.g. phenol, ethanol, iodine (antiseptics).																

- .8 ***Intrinsic resistance for vancomycin is present in:**
 a. Penicillin-resistant bacteria
 b. C. difficile.
 c. Staph sensitive to cloxacillin.
- .9 ***Which of the following is not an aminoglycoside?**
 a. amikacin.
 b. Erythromycin.
 c. Neomycin.
 d. Sisomicin
- 10 **Pasteurization gives guarantee of:**
 a. Kills spores sterilization.
 b. Disinfection.
 c. Saponification.
 d. None of the above
- .11 For penicillin resistant pneumococci, which is used?**
 a. Ampicillin.
 b. Ceftriaxone.
 c. Cefuroxime + Rifampicin.
 d. Ampicillin + Rifampicin
- .12 Cephalosporin resistant bacteria producing beta lactamase is:**
 a. E.coli.
 b. Y. Enterocolitica
- .13 Which of the following denote sterilization?**
- .14 TB contamination can be disinfected by**
- .15 **A pre-operative medication of antibiotics is indicated in:**
 a. Acute appendicitis.
 b. Gangrenous obstructed loop.
 c. Abdominal hernia.
- .16 Bronchoscope**
- .17 ***- Which is the best way to sterilize a bronchoscope?**
 a. Autoclave.
 b. Ethylene-oxide.
 c. Gamma rays.
 d. None

- 8.** a. Penicillin-resistant bacteria (both act on cell wall)
 Most important use of vancomycin is against staph aureus that are resistant to penicillinase resistant penicillin e.g. nafcillin.
- 9.** b. Erythromycin.
- 10** a. Kills spores sterilization.
- 11.** b. Ceftriaxone.
- 12.** a. β lactamases are produced by;
 B. fragilis.
 N. gonorrhoea.
 H. influenza.
 Legionella
 Enterobacteriaceae
- 13.**
- 14.** Glutaraldehyde.
 Or phenolic
- 15.** b. Gangrenous obstructed loop.
- 16.** Glutaraldehyde
- 17.** a. Autoclave is used for heat resistant parts but ethylene-oxide may be used for heat labile parts.

BASIC TECHNIQUES

.18 ****Castanida medium for blood culture contain?**

.19 ****Medium for each:**

- a. TB
- ***b. Gonococci
- c. C. Diphtheria
- d. Staph. Aureus

.20 ****If you forget iodine step in gram stain staph aureus will be seen?**

.21 ****Significant bacterial count is**

.22 *****Anti-coagulant for blood culture ?**

.23 *****In CLED all bacteria grow except?**

- a. Enterobacter,
- b. salmonella
- c. klebsiella
- d. enterococci.

.24 *****Gram stain best done in?**

- a. Lag phase
- b. log phase
- c. static phase
- d. death phase.

.25 *****Microaerophilic atmosphere means?**

- a. 10% CO₂
- b. anaerobic
- c. trace of free O₂

.26 ****Which agar concentration is the best to detect bacterial mobility?**

- a. 0.01%
- b. 0.5%
- c. 1.5%
- d. 2%
- e. 4%

18. Both liquid & solid media in same bottle.

19.

- a. L.J medium
- b. Chocolate agar or Thayer martin media
- c. Loefflers media
- d. Blood agar

20.

Red

21.

100,000. (10^5)
 10^4 - 10^5 = Equivocal
 $<10^4$ and mixed = probable contamination

22.

Na-phosphonaphthol sulphonate
 Also known by abbreviation SPS

23.

None
 On CLED;
 Salmonella gives flat blue colonies.
 Klebsiella gives mucoid yellow colonies.
 Enterococci give yellow translucent colonies.

24.

b. Growth of bacteria on media follows the following phases;
 - Lag phase; phase of accommodation to medium. No net growth
 - Log phase; phase of maximum growth.
 - Stationary phase; growth equilibrates death
 - Decline phase; phase of exhaustion of medium components. Growth declines.

25.

c. trace of free O₂

26.

b. 0.5%
 For solid medium 1.5-2% concentration is used.

- .27 *****Best time to read oxidase test is within:**
 a. 5 seconds.
 b. 10 seconds.
 c. 1 minute.
 d. 2 minutes.
 e. 5 minutes.
- .28 *****In ZN staining used for *M. leprae*, the decolorizing agent used is:**
 a. 5% acetone.
 b. 5% acid alcohol.
 c. 5% hydrochloric a.
 d. None of the above
- .29 *****Which of the following is a chemical fixative?**
 a. Formalin.
 b. Mercuric chloride
 c. Methyl alcohol
 d. All of the above
- .30 ******When urine is preserved for culture it should be:**
 a. preserved at room temperature.
 b. Preserved in refrigerator.
 c. preserved with nitric acid.
 d. Preserved with sulfuric acid.
 e. Preserved with boric acid.
31. **Suitable medium for many pathogenic bacteria**
- .32 **Blood culture is indicated in the following:**
 a. Mycobacterium
 b. Diphtheria
 c. Staph. Aureus
 d. None of the above
- .33 **Solid media include:**
 a. Slant.
 b. Streak plates.
 c. Pour plates.
 d. All of the above

27. b. 10 seconds
28. d. None of the above.
 1% acid alcohol.for dec. *M. labrae*
 3% acid alcohol is used for *M. Tuberculosis*
29. c. Methyl alcohol
30. e. (check also for b.) If a delay > 1-2 hours is unavoidable multiplication of bacteria can be prevented by;
 - Storage in refrigerator at 4°C
 - Collected and transported in a container of boric acid at a concentration of 1.8%
31. Brain heart infusion.
32. ??d. None of the above
 ?? c. Staph. aureus may cause septicemia.
33. d. All of the above

BASIC BACTERIOLOGY

- .34 ****Cell wall is absent in?**
 a. mycoplasma
 b. bacteria
 c. fungi
 c. viruses

34. a. Mycoplasma is the smallest organism capable of self replication. It possesses cell constituents of bacteria except cell wall. Instead, there is a triple layer cytoplasmic membrane.

- .35 ****Sterol is the main constituent of cell wall of:**
 a. Mycoplasma.
 b. Rickettsia.
 c. Chlamydia.
 d. Leptospira.
 e. Staph.
- .36 *****Which of the following contains more peptidoglycan?**
 a. G+ve bacilli.
 b. G-ve bacilli.
 c. Chlamydia.
 d. Rickettsiae.
- .37 *****Sedimentation constant of bacterial ribosomes is:**
 a. 40s
 b. 60s
 c. 70s
 d. 80s
- .38 *****Endotoxins are chemically:**
 a. Mucopeptides.
 b. Proteins.
 c. Lipopolysaccharides.
 d. Polysaccharides.
- .39 *****L forms differ from parent cells in all of the following except:**
 a. Lack rigid cell wall.
 b. Lack regular shape.
 c. Cannot grow and multiply on nutrient medium.
 d. Lack regular size.
- 40 *****Bacterial genes are transferred by all of the following means except:**
 a. Transformation.
 b. Transduction.
 c. Mutation.
 d. Conjugation.
- .41 ****Sepsis cause**
41. **Which is not a super antigen?**
 a. TSSA
 b. Pseudomonas exotoxin A.
 c. Tetanus toxin.
 d. Diphtheria toxin.

35. a. Unlike the cell wall of bacteria, mycoplasma cell membrane contains cholesterol or carotenol in addition to the usual mural and phospholipids.
36. a. The peptidoglycan layer is much thicker in Gram positive than in Gram negative bacteria. Rickettsia cell wall similar to that of Gram negative bacteria. Chlamydia cell wall is similar to that of Gram negative bacteria but no muramic acid.
37. c. 70s
 Bacteria has 70s ribosomes with 30s & 50s subunits.
 Mammalian ribosome has sedimentation coefficient of 80s with 60s & 40s subunits.
38. c. Endotoxins are integral part of G-ve bacteria. They are LPS whereas exotoxins are polypeptides.
39. c.
- 40 c. The transfer of genetic information between bacterial cells can occur by 3 methods: conjugation, transduction and transformation (see table p16 Jawetz review).
41. Toxic granulomas.
41. b. Pseudomonas exotoxin A.
 New

GRAM POSITIVE COCCI

.42	Cell wall of staph.	42.	Teichoic acid Gram positive cell wall is composed of peptidoglycan and teichoic acid (no lipid A or polysaccharide as in gram negative cell wall)
.43	**Food poisoning by staph aureus is due to.	43.	Enterotoxin This acts by stimulating release of IL1 and IL2.
.44	**Enterotoxin of staph. Aureus is heat.	44.	stable
.45	***Differentiate between pathogenic & non pathogenic staphylococci use	45.	coagulase test. Pathogenic staph is aureus species.
.46	**Most streptococcus infection to human is	46.	A & B hemolytic.
.47	***To differentiate A & B hemolytic streptococci we use a. bacitracin b. optochin c. ampicillin	47.	a. Group A strept is bacitracin sensitive while group B is bacitracin resistant. Optochin is used to differentiate α hemolytic strept (pneumococci are sensitive and strept viridans is resistant)
.48	**Commonest disease caused by streptococcus pyogenes is.	48.	sore throat Strept pyogenes cause three types of diseases; - Pyogenic (pharyngitis and cellulites) - Toxigenic (TSS and scarlet fever) - Immunogenic (Rheumatic fever and AGN)
.49	**Food poisoning symptom [vomiting] 4 hrs after ingestion of food seen in? a. E.coli b. staph aureus enterotoxin c. salmonella typhi d. vibrio cholera	49.	b. staph aureus enterotoxin
.50	***Strept pyogenes cause all except: 118. Streptococcus cause all except:	50.	Toxic shock syndrome (check this answer because pyrogenic exotoxin A of strept pyogenes is similar to TSST of staph).
.51	Pneumococci are typed by	51.	Optochin, bile solubility, Quellung test Pneumococci are optochin sensitive, bile soluble and Quellung test positive.
.52	Antigen protective for pneumococci is	52.	Capsular polysaccharides. The capsular polysaccharides is antigenic. Other protective mechanisms of pneumococci include enzyme IgA protease, toxin and SSS.

Microbiology

- .53 ****Diagnosis of metastatic staphylococcal lesions:**
 a. Protein A Ab.
 b. Anti DNase.
 c. Endotoxins
- .54 *******The following differentiates between staph. Pyogenes and strept epidermidis:**
- .55 *****The epidemiological marker used most frequently in strain differentiation of Staph. aureus is:**
 a. Phage typing.
 b. Biotyping.
 c. Serotyping.
 d. Bacteriocin typing
- .56 ****All of the following species of streptococcus are B hemolytic except:**
 a. Strept. Pyogenes.
 b. Strept infrequens.
 c. Strept. avium
 d. Strept. salivarius
- .57 ****Which organism grow on NaCl concentration 6gm/L?**
- .58 **Staph.**
- .59 **Test used to differentiate staph. aureus**
 a. Catalase
 b. Coagulase
 c. Dnase
 d. ASOT
- .60 ****ASOT is used to detect:**

53. a. Staph don't produce endotoxins (being gram positive). Anti Dnase is used mainly for strept. Protein A antibody methods are diagnostic for staph disseminated lesions.
54. Novobiocin.
 Novobiocin is used to differentiate staph epidermidis (sensitive) from staph saprophyticus (resistant). To differentiate staph pyogenes
55. a. Phage typing.
56. b. Strept. pyogenes is β hemolytic, Strept. avium is α hemolytic, Strept. salivarius is non-hemlytic.
57. Streptococcus.
 Strept fecalis grows on 6% NaCl while strept bovis don't.
58. Catalase test
 Staph is catalase positive.
59. b. Coagulase is used to diagnose staph aureus (positive) from other staph and strept. Catalase is used to differentiate staph from strept., Dnase and ASOT are used to diagnose strept.
60. Strept. pyogenes.

GRAM NEGATIVE COCCI

- .61 *****Differentiation of N. gonorrhoea from N. Meningitis by sugar fermentation?**

61.	N. Menin	N. Gono	
Maltose		-	
+			
Glucose	+		+
Sucrose	-		-

.62 ****In *N. gonorrhoea* causing disseminated lesion (systemic manifestation), which of the following is incorrect.

- a. Sensitive to penicillin (G+ve only)
- b. Resistant to ampicillin

.63 Meningococemia causes:

.64 *Neisseria gonorrhoea* can cause which of the following?

- a. Osteomyelitis.
- b. Arthritis.
- c. Septicemia.

62. a. Oral penicillin, ciprofloxacin or doxycycline are used in gonococcal arthritis.

63. Waterhouse-Friedrichsen syndrome.

64. b. *N. gonorrhoea* may cause septicemia and suppurative arthritis and hemorrhagic skin papules.

GRAM POSITIVE BACILLI

.65 **Gm +ve bacilli arrange in Chinese letter pattern is

.66 **Pseudomembrane caused by a

.67 *****Which test is used to ascertain toxigenicity of *C. diphtheriae*?

- a. Dick test.
- b. Elick's test.
- c. Schick test.
- d. None of the above.

.68 *****A membrane on the pharynx on removal it leaves a bleeding surface occurs with:

- a. Diphtheria.
- b. IMN
- c. Vincent's angina.
- d. candida.
- e. streptococcal infection.
- f. All of the above.
- g. None of the above

.69 ***A CSF culture revealed an organism that is G+ve at 37°C and no growth at room temperature. This is most likely to be:

.70 Neonatal meningitis G+ve rods.

.71 *Listeria monocytogenes*.

.72 **Growth of *Actinomyces israelii* on gram stain shows

.73 **Actinomycosis is caused by?

65. Diphtheria bacilli,

66. diphtheria

67. b. Elick's test is in vitro plate test for toxin production. Schick test is an ID test for susceptibility to diphtheria, if immune → -ve (no reaction).

68. a. Diphtheria.

69. Listeria.
Something missed in this question; Listeria is motile at 25°C not at 37°C. It grows on a wide range of temperature (3-43°C)

70. *L. monocytogenes*.

71.

72. gm +ve branching rods with club ends.

73. *Actinomyces israelii* & *Arachnia propionica*

- .74 ****Madura foot have all except?**
- Fever.
 - bone involvement
 - Draining sinus tract
 - granules in discharge
 - Caused by fungus or bacteria.

74. a. Madura food is a subcutaneous infection with fungi (e.g. eumycetes) or actinomyces. There is discharge from sinus tract, bone involvement follow. Systemic symptoms are uncommon, and so is LN.

ENTEROBACTERECIAE & PSEUDOMONAS

75. ****Mobile bacilli are?**
- .76 ****Proteus is**
- .77 ****Most common agent causing UTI is?**
- E.coli
 - klebsiella
 - proteus
 - 13seudomonas,
- .78 ****IMViC reaction of E.coli & klebsella are?**
- .79 ****Example of NLF colonies on MacConkey agar ?**
28. Examples of LF colonis on MacConkey agar?
- .80 ****The following proteous are indole +ive except**
- .81 ****Klebsiella pneumoniae produces.**
- .82 ****IMViC reaction of E.coli is**
- .83 ****Which of the following is urease +ve**
- .84 **Urease present in all except?**
- Brucella.abortus,
 - Brucella.melitensis,
 - shigella sonni,
- .85 ****Which strain of E. coli cause HUS?**
- VTEC O157, H7
 - EPEC O157:H7
- .86 **E. coli, Klebsiella and proteus are**
- .87 **E.coli is indole?**

75. E.coli, V.cholera, salmonella, pseudomonas, proteus,
76. Motile gm -ive bacilli, NLF, produce swarming on BA.
77. a.
78. E. coli is ++-- Klebsiella is --++
79. NLF (produce pale colored colonies): Salmonella, shigella, 13seudomonas, proteus
 LF (produce pink colored colonies):E.coli, Klebsiella.
80. P. mirabilis
 While M. morganii, P. vulgaris, and 13seudomonas13 are all positive.
81. mucoid colonies
82. .[+ + - -]
83. proteus.
 Also, Klebsiella and pseudomonas.
84. c. Not only sh. Sonni, but also Shigella A,B and C.
85. a. EHEC 157 = VTEC 157
86. Commensals of GIT
87. Positive
 Also proteus is indole positive.

- .88 ****Pseudomonas infections include?**
- .89 ****Pseudomonas is?**
- .90 ****Pseudomonas aerogenosa produce?**
- .91 **Contamination of sterile fluid is**
- .92 ****An abscess with bluish green discharge caused by?**
 a. Staphylococcus
 b. proteus
 c. Pseudomonas.
- .93 ******Hospital fluids are usually contaminated by:**
******120. Organism of medical fluids is:**
 a. Pseudomonas.
 b. Staph.
 c. Strept.
- .94 **Pigments of pseudomonas aerogenosa**
- .95 ****Widal test used in the diagnosis of?**
 a. Typhoid fever
 b. malaria
 c. malta fever
 d. brucellosis
- .96 ****Enriched medium for salmonella is?**
- .97 ****On Wilson Blair media salmonella produce?**
- .98 ****Media used for the isolation of salmonella are?**
- .99 *****Culture of choice in the first week of typhoid fever?**
 a. Feces.
 b. urine.
 c. blood.
 d. CSF
- .100 ****Color of salmonella & shigella on MacConkey agar is?**
- .101 *******Salmonella & shigella are differentiated by?**
- .102 **Seroprevalence of salmonella typhi?**

88.	May cause UTI, otitis media & eye infection, Bed sore, burns,
89.	Motile gram -ive bacilli, NLF, produce pigmented colonies
90.	Blue green pigments, Pyocyanin & pyoverdine.
91.	pseudomonas.
92.	c.
93.	a. Pseudomonas are able to grow in water with traces of nutrients.
94.	Both Fluorescein (pyoverdine) and pyocyanin
95.	a. Typhoid fever
96.	Selenite broth
97.	S.typhi large black colonies with metallic sheen after 24hours, S.paratyphi produce green colonies after 48hours.
98.	MacConkey, DCA, Wilson blair, Also XLD and selenite broth.
99.	c. Blood culture are usually positive 90% in the first week of fever, thereafter rate of positivity decreases. Stool culture are positive throughout the course of disease. However, it is of less significance being positive in carriers and diagnose gastroenteritis not enteric fever.
100.	NLF
101.	Motility
102.	O-9,12, H-1,2

- .103 **Diagnosis of typhoid fever in 1st week is done by**
- .104 **Differentiate between E. coli and salmonella**
- .105 ******All of the following is correct regarding enteric fever except:**
- .106 ****Microscopic appearance of Yersinia pestis is?**
- .107 *******Dog bite G-ve bacilli isolated is probably:**
 a. Pasteurella multucida
 b. H. influenza.
 c. B. Abortus
 d. toxocara canis
- .108 ****Cholera is caused by?**
 a. V. cholera
 b. E.coli
 c. proteus
 d. 15seudomonas.
- .109 *****Enriched media for V.cholera is ?**
- .110 ******Loss of fluid in cholera is due to?**
- .111 *****Mode of action of vibrio is by:**
 a. irritation of intestinal mucosa by vibrio.
 b. attack of intestinal mucosa by the toxin.
 c. stimulation of membrane bound adenylecyclase
- .112 **Vibrio vulnificus.**

103.	blood culture
104.	Salmonella is NLF and E.coli is LF
105.	Localized gut disease.
106.	G-ve coccobacilli.
107.	a. Pasteurella multucida
108.	a. V. cholera
109.	Alkaline peptone water [pH8.6],
110.	Adenyl cyclase system activation This leads to ++cAMP → Chloride and water loss.
111.	c. stimulation of membrane bound adenylecyclase
112.	This is halophilic cholera i.e. lives in salted water, infects wounds of shellfish handlers causing cellulitis (may cause septicemia in immunocompromized patients).

RICHETTSIAE, CHLAMYDIA AND MYCOPLASMA

- .113 ****Rickettsial pox is transmitted by**
- .114 ****Stain for rickettsia is.**
- .115 **Organism associated with atherosclerosis:**

113.	mites. Causative organism is R. akari.
114.	Giemsa stain Giemsa gives rickettsia blue to purple color, Gimenes stain it red, Machiavillo stain it red inside blue cells and IF gives better sensitivity and specificity.
115.	Richetssia (x) Chlamydia pneumoniae (see Kumar 686).

.116 ****Lymphogranuloma venerum is caused by.**

.117 ****Mycoplasma are resistant to action of**

116. Chlamydia
Sero D-K 16hlamydia trachomatis

117. antimicrobial.

SPIROCHETES

.118 ****Specific or non specific test for syphilis?**

.119 ****Treponema pallidum is a?**

.120 ****Treponema pallidum causes?**

- a. Syphilis
- b. TB
- c. meningitis
- d. AIDs

.121 *****Bejel is characterized by all except?**

- a. Non venereal transmission
- b. Caused by 16ariant of Treponema pallidum.

.122 *******Which of the following accurately don't describe 3ry syphilis:**

- a. Ulcerative skin lesions.
- b. Gummas in internal organs.
- c. Rare spirochetes in lesions with limited tissue damage..

.123 ****Yaws disease**

118. Non-specific- RPR, VDRL
Specific- TPI, FTA-ABS, TPHA, MHA-TP

119. Spirochate, can be demonstrate by dark field microscopy.

120. a. Syphilis

121. Both are OK. Bejel is non venereal disease caused by T. pallidum endemicum. It is a highly infectious skin in fection.

122. a. Ulcerative skin lesions.

123. Caused by Treponema pertenue
Characterized by ulcerating papule, scar forming and may cause bone destruction.

HEMOPHILUS

.124 ****Hemophilus grows 16uxuriantly on?**

.125 ******Satellitism is exhibited by?**

- a. H. influenza.
- b. N. meningitides.
- c. mycobacteria

.126 ****Hemophelus influenza require?**

.127 ****H Ducree causes.**

.128 ****Bacteria shows satellism.**

.129 ****Factor V & X are essential for growth of.**

124. Chocolate media.

125. Hemophilus influenza around staph. Aureus

126. X & V factors for their growth

127. soft chancre
Soft chancre is also called chancroid. H. Ducreii don't require V factor

128. H. Influnzae

129. H. Influenza

.130 H. influenza meningitis occurs most frequently in :

.131 Satellism helps to diagnose?

130. children.
1/2 to 4 years old.

131. H.influenza

BORDETELLA & BORRELIA

.132 ****Bordetella pertussis are?**

.133 **Bordetella exotoxin =**

.134 *****What type of fever caused by borrelia?**

- Relapsing fever.
- Q fever
- Rheumatic fever.
- enteric fever.

132. Strictly aerobes.

133. Single Ag previously termed Islet activity protein.
It resembles cholera toxin in structure and action.

134. a. B. recurrentis and duttoni cause relapsing fever. B. burgdorferi cause lyme disease and Q fever is caused by coxiella burnetti.

ANEROBIC BACTERIA

.135 ****Gm +ve bacilli with terminal round spores resembling match stick are**

.136 ****Nagler reaction used for**

.137 ****Clostridia are**

.138 ****Bacteroid is resistant to?**

- Penicillin
- metronidazole
- aminoglycoside
- chloramphenicol.

.139 ****Stormy fermentation is seen in?**

- Cl. Histolyticum
- Cl.prefrenses
- Cl.septicum.

135. Clostridium welchii,
Also called perfringens.

- Rapid identification of Cl. Welchii

	Lecithinase (Negler's)	L	G	
C. difficile & botulinum	-	-	+	Lecithinase – ve Saccharolytic NLF
C. perfringens	+	+	+	Lecithinase +ve Saccharolytic LF
C. tetani	-	-	-	Lecithinase – ve asaccharolytic NLF

137. Gm +ve anaerobic bacilli

138. c. aminoglycoside. Also to penicillin (a),
neomycin and kanamycin.
Chloramphenicol is highly effective.

139. b. Cl. Perfringens in litmus milk medium
produces A&G, the acid clots milk and the
gas breaks the clot producing stormy
fermentation.

- .140 **Bacteria that can be best identified best by direct Gram's film is?**
 a. Vincent bacillus
 b. campylobacter
- .141 *****The following combination is isolated from pus from deep pyonidal sinus:**
 a. B. fragilis.and streptococcus milits.
 b. B. fragilis and B. abortus.
 c. Strept B.hymolitic and streptococcus.
- .142 Suitable medium for anerobic bacteria**
- .143 **Which one has non clostridium crepitation?**
- .144 Crepitant cellulites is caused by:**

- 140.** a. Vincent bacillus
- 141.** a. B. fragilis.and streptococcus.
- 142.** Blood
 (selective or non selective), others include;
 - Cooked meat broth (CMB)
 - Thyoglycolate.
 - BHI
- 143.** Cl. perfrengens (X)
 Clostridia producing gas gangarene are;
 - .Cl. perfringens (mainly).
 - Cl. Novyi.
 - Cl. septicum
 - Cl. histolyticum.
- 144.** Clostridia.

BRUCELLA

- .145 **Malta fever is caused by?**
- .146 A young Saudi male came with fever & myalgia your diagnosis is?**
 a. Brucella
 b. staphylococcus
 c. streptococcus
 d. gonorrhea
- .147 **Bacteremia is seen in:**
 a. Brucella.
 b. Tetanus.
 c. shigellosis

- 145.** Brucella species
 Also called undulant fever.
- 146.** a. Other symptoms and signs include;
 - Arthralgia
 - Sweating
 - Heptatosplenomegally.
- 147.** a. Both tetanus and shigellosis are localized infections. Brucella enters through the mouth, lung or skin to local lymph nodes to blood to liver, spleen and bone marrow to cause type IV hypersensitivity.

MYCOBACTERIA

- .148 **Mycobacterium Leprae**
- .149 **L.J medium is used for culturing?**

- 148.** can not be culture artificially in the laboratory
- 149.** T.B,

- .150 ****Mycobacterium Leprae are?**
- .151 ****Mycobacterium .T.B is?**
- .152 *****TB culture takes**
 a. 2-4 days.
 b. 12 days.
 c. 3-6 weeks.
 d. 6-10 weeks.
- .153 ****Most sever form of leprosy is**
- .154 ****Mycobacteria are acid-alcohol fast because**
- .155 ****In lepromatous leprosy immunity is**
- .156 *******Which of the following mycobacteria is related to MTB complex?**
 a. Mycobacterium Africanum.
 b. M. leprae
- .157 **Acid fast bacilli in stool =**
- .158 *******Diagnosis by direct staining:**
 a. TB
 b. Hemophylus
- .159 **Which of the following belongs to PTB family?**
 a. M. Kanasasi.
 b. M. Bovis.
 c. M. intracellulare.
 d. M. africanum.

150.	Acid fast [5% H ₂ SO ₄]
151.	Acid fast [20% H ₂ SO ₄], alcohol fast,
152.	d. 3-6 weeks.
153.	Lepromatous
154.	they resist to decolorized by acid & alcohol.
155.	very low. Almost nil
156.	a. MTB complex include TB, M. africanum, M. bovis, BCG and M. microtti..
157.	TB
158.	a. Acid fast smear is number one rapid test for mycobacterium TB. Positive smear has a predictive value of 96%.
159.	a. MOTT (mycobacteria other than TB) are classified into; - Photochromogens: M. kansasii, M. marinum. - Scotochromogens: M.scrofulucian, M. szulgai. - Nonpigmented: M. avium cellular complex (MAC) M. phlei, M. fortuitum

MISCELLANEOUS

- .160 ****Malignant pustule is caused by.**
- .161 ****Plague is by**
- .162 ******Vaginal discharge is absent in?**
 a. Gardnerella infection
 b. trichomonas vaginalis
 c. Chlamydia
 d. 19ryptococcus.

160.	Bacillus anthracis
161.	rat flea.
162.	d. G.vaginalis produce fishy smelling discharge, TV produce thin bubbly fishy smelling discharge, Chlamydia produce thin discharge. Cryptococcus is a lung infection.

- .163 **Sterile pyuria not seen in?**
- a. TB
 - b. non specific urithritis
 - c. urine collection by suprepubic puncture
 - d. prior treatment with antibiotic

- .164 **Diagnosis of bacterial endocarditis?**
- a. Urine culture
 - b. blood culture

- .165 *****Aspergelloma: All correct except:**
- a. Lungs are the most common site.
 - b. no organism is present in lesion.
 - c. Affect children.

- .166 **Which combination is wrong?**

- .167 Zoonotic disease**

- 163.** c. Causes of sterile pyuria;
TB
Mycoplasma
Leptospirosis
Vaginal contamination
Antibiotics, L forms
Abacterial cystitis
Non infectious disease e.g. tumour, FB

- 164.** b. blood culture

- 165.** b. Aspergelloma is a ball of aspergillous growth. It may affect children with preexisting pulmonary condition.

- 166.** Non-specific urethritis: Penicillin.

- 167.**

MYCOLOGY

.168 *****Candida is identified by

.169 **An oval to spherical budding cause by.

.170 **Tinea versicolor is caused by.

.171 *****Tenia capitis is caused by:

- a. Microsporum.
- b. Trichophyton.
- c. Candida

.172 *****T. vaginalis may be mistaken for:

- a. White cells.
- b. RBCs.
- c. Candida.

168.	germ tube test.
169.	C neoformans
170.	M.Furfur
171.	a. Microsporum ausdonii cause tenia capitis. Trychophyton causes tenia pedis or unguium.
172.	a. White cells.

PARASITOLOGY

- .173 ****Malaria affecting large RBC-**
- .174 ****Leishmania id transmitted by**
- .175 ******Dwarf tape worm is.**
- .176 *****Hematuria in Egyption Patient think of,**
- .177 ****Sporozoites are present in**
- .178 ****A parasite can ingest RBC & present in stool-**
- .179 *****Entrobilus vermicularis is diagnosed by.**
- .180 ****Larva is present in fresh stool?**
- .181 ****Malaria with multiple infection?**
- .182 ****Anchovy sauce pus is ?**
- .183 ****Visceral leishmaniasis best diagnosed by?**
a. B//M biopsy
b. Serology
- .184 ****Cutaneous leishmaniasis diagnosis by?**
a. Skin biopsy
b. Culture,
- .185 **The following parasite doesn't not involve GIT in man?**
a. Ascaris
b. cysticercosis
c. H.nana
d. Tenia
- .186 **The cigar glycogen is in**

173.	P.vivax. In P. vivax, infected cells are enlarged with schuffner's dots. In P. ovale infected RBCs are enlarged without Schuffner's dots. P. malariae cause normal or even reduced sized RBCs. In P. falciparum cells are normal with Maurer's clefts.
174.	Sand fly.
175.	H.Nana
176.	Schistosoma hematobium.
177.	reticuloendothelial system (X). Sporozoits are the infective stage in the mosquito. The merozoit is the form inside the infected RBC. Such RBC is called schizont.
178.	E.Histolytica.
179.	anal swab
180.	Strongyloid stercoralis.(rhabdatiform larva)
181.	P. Falciparum (X). Vivax and ovale due to preerythrocytic schizogony cause multiple infection.
182.	E. Histolytica
183.	a. B//M biopsy
184.	a. Skin biopsy
185.	b. cysticercosis
186.	I. buchlii, but if cigar shaped chromatoid it is E. histolytica (immature cyst)

.187 **The arthropod vector of malaria is:

- a. Female anopheles mosquito.
- b. Culex mosquito.
- c. Tsetse fly.
- d. None of the above

.188 Cryptosporidium

.189 A worm that infects man and pass eggs around the anus is

.190 Giardia lamblia is diagnosed in stool by the presence of

.191 **Which is caused by skin penetration:

.192 Serology of E.H except

.193 Stains for stool include:

- a. Iodine.
- b. Fluorescent.
- c. Trichrome
- d. All of the above

187. a. Female anopheles mosquito.

188. Intestinal coccidian infection with AIDS

189. Oxyurius vermicularis.

190. Cysts or trophozoit

191. Schistosoma hematobium.
Also ankylostoma duodenal, strongyloides
and N. americanus.

192. IFAT
Also, CFT, IHA & ELISA.

193. d. All of the above

VIROLOGY

- .194 *****HAV all are correct except:**
 a. Infection in adults is more severe than children.
 b. There is chronic carrier state in young children.
 c. Vaccination is recommended for high risk group.
- .195 **Best sample for the diagnosis for recovery of polio is**
- .196 **Virus & living cells resemble in**
- .197 **Latent infection seen in all except?**
 a. Herpes virus
 b. adeno virus
 c. coxsackie virus
 d. retorvirus.
- .198 **Which of the following virus causes systemic effect?**
 a. Poliovirus
 b. adenovirus
 c. rhinovirus
 d. Influenza virus.
- .199 ***Which is not correlating?**
- .200 ****Which combination is wrong?**
 a. Rubella: arthritis in young women.
 b. Mumps: Antigenic shift
 c. Coxsackie: Meningitis.
 d. EBV: Heterophil Abs.
- .201 *****Which of the following can pass to fetus transplacentally?**
 a. HSV.
 b. VZV.
 c. CMV
- .202 ***Who of the following is supposed to transmit CMV infection to hospital staff?**
 a. pregnant woman having a skin rash in second trimester.
 b. HIV patient
 c. HCV patient.
 d. Neonate with congenital defect due to CMV infection

194.	b. There is chronic carrier state in young children.
195.	feaces. Also from throuat and spinal fluid.
196.	reproduction.
197.	a. Herpes virus (?? HS causes latent infection)
198.	There may be a missing "except" in this question because adeno cause RTI and hemorrhagic cystitis and GE. Influenza and polio also cause systemic effect. Rhino is an exception.
199.	RSV keratitis in AIDS patients.
200.	b. Antigenic shift is a character of influenza virus
201.	c. CMV
202.	d. Neonate with congenital defect due to CMV infection.

- .203 **All diagnose viral infection except:
Which diagnose viral infection?
- IgM Ab is one serum only.
 - High IgG titre in serum in acute and convalescent stage.
 - 2 fold increase in IgG
 - 4 fold increase in viral specific IgE in acute and convalescent stage.
 - All of the above
- .204 ****RSV all correct except:**
- Rectal sample gives the highest yield of the virus.
 - Form a syncytium in tissue.
 - Causes lower respiratory illness in children.
 - Related to paramyxoviruses.
- .205 **In a patient with rabies infection, the main histological characteristic in the brain is:**
- Lewi bodies.
 - Durel bodies.
 - Negri bodies.
 - Amyloid plaque
- .206 Enteroviruses cannot be isolated from which of the following specimens?**
- Throat swab.
 - Fecal specimens.
 - Gastric fluid.
 - Urine.
 - CSF.
- .207 Herpes zoster**
- .208 Regarding rotavirus, all are correct except:**
- DS-RNA virus
 - cause majority of infant diarrhoea
 - diagnosed in feses by ELISA
- .209 Ebola virus causes**
- .210 Polio virus is transmitted by which rout?**
- .211 **Which of these is not dangerous in contact with AIDS patient?**

- 203.** a. IgM Ab is one serum only.
A high IgG titre in serum in acute and convalescent stage may be due to immunization. 2 fold increase in IgG ??.
IgE is regain of allerty not infection.
- 204.** a. RSV is a paramyxovirus. It is the most important cause of pneumonia and bronchiolitis in infants.
- 205.** c. Negri bodies.
- 206.** d. enteroviruses isolated from throat e.g. polio, from feces e.g. polio and hepatitis, from CSF e.g. coxsachie virus.
Enteroviruses resist gastric acidity.
- 207.** Localised
- 208.** None
Rota virus is a dsRNA virus, it is diagnosed in feces by ELISA. It causes a significant proportion of infant diarrhoea.
- 209.** Fever, myalgia, diarrhea, rash, lymphadenitis, complicated with hemorrhage, encephalitis.
- 210.** Feco-oral
- 211.**

If glucose is fermented , TSI reaction is: KIA

- Fungus with acid fast bacilli stain positive: Nocardia.
- Plague causative agent: Yersinia pestis
- Disinfection: Partial destruction of living organisms:
- All sporocidal except: Ethanol.
- Trophozoites on Wright's stained film: Signet ring.
- Ring form with gametocytes seen in *F. falciparum*.
- Best for collecting urine is dewling catheter, aseptically aspirate 5ml of urine from the catheter tubing.
- Best to disinfect tables contaminated with blood is: Phenol.
- 70% alcohol cause protein denaturation and cell membrane damage.
- Transmission of HIV: All
- Fungal infection is not diagnosed by culture because etiologic agent is difficult to grow
- Malaria donot grow in plasma
- Food poisoning is caused by *S. enteritidis*.
- Strept through all
- First line of body defence against strept is phagocytosis
- Renal impairment except galactosemia
- Don not produce B hemolysis on blood agar: *Klebsiella* and strept viridans.
- *N. gonorrhea* infect other than genital tract: vaginitis.
- UTL with indole +ve: *E. coli*
- Rota: not correct is hemorrhagic conjunctivitis and cardiac disease.
- Respiratory infection cause by: Coxacki B and parainfluenza.
- All G+ve except: *Neisseria* and mycobacterium
- Specimen examined directly: CSF
- BR that differentiate *Neisseria* species is sugar fermentation.
- Bacillary dysentery: *Shigella*.
- Transport media for stool: Carry Blair.
- For nosocomial outbreaks of *Pseudomonas*: pyocin typing.
- Organism that gives metallic sheen on EMB
- Specimen for anerobic culture: Pleural fluid and --- abscess.
- Destruction of microbes except by: Centrifugation.
- Cause of ophthalmia neonatorum: *N. gonorrhoeae*
- G+ve in cuboidal packages: *Sarcinae*
- For bacterial motility except: H*E
- BHI with addition of antibiotics for: *N* (histo.plasma and fungi)
- Choice of media depend on except: one selective plating medium
- TSI gives the following reactions: All (*Providentia* K/AG, *E. coli* K/AG, *Citrobacter* K/AG, *Proteus* K/A
- In SS agar, source of carbon is lactose
- Tryptophan is the basis of Indole test.
- Antibiotic sensitivity tes commonly by disc diffusion
- Meningitis in neonates: *L. monocytogens*.
- New world hook worm: *Necator americanus*.
- High concentration of liquid or gaseous germicidal chemical sterilization.
- Routine bacterial culture is examined after 5-10 hr, 18-24 hr.
- Routine bacterial culture is incubated at 35°C.
- Rapid method for detecting significant bacteria is by microscopy.
- *Mycoplasma* media is PPLO
- Flukes = Trematodes
- Ribbon like worms = Nematodes
- Most common helminthes are nematodes.
- Largest protozon = *B. coli*

- Tape worm = cestodes.
- Asexual forms of malaria= Merozoite, asexual cycle in man, sexual cycle in Mosquito
- Ascaris egg migrate from lung to small intestine
- Parasite in blood smear = plasmodium
- Thrush= C. Albicans.
- Flagellates except: S. mansoni.
- Toxo diagnosed by: Fluorescent antibody sera
- Swarming G+ve bacilli = Clostridium
- Protozoa of endemic and epidemic disease = G. lamblia.
-
- Entrobilus diagnosed by Scotch tape method
- Schffner's dots = P. vivax
- Hemoflagellates = Leishmania and trypanosomes
- General term of worms = Helmenth

100 Question in General Bacteriology

1. Bacteria without cell Wall
 - a. Chlamydia
 - b. Rickettsia
 - c. Mycoplasma
 - d. Spirochetes
2. Obligatory Aerobic Bacteria
 - a. Grow in presence of oxygen traces and 5 – 10% CO₂
 - b. Grow in either presence or absence of oxygen.
 - c. Grow only in presence of oxygen
 - d. Grow only in absence of oxygen
3. Brucella Melitensis is
 - a. Obligatory aerobic bacteria
 - b. Obligatory anaerobic bacteria
 - c. Facultative anaerobic bacteria
 - d. Micro-aerophilic bacteria
4. Function of cell membrane
 - a. Giving the shape to bacteria
 - b. Carrying somatinc antigen
 - c. Excretion of hydrolytic exo-enzymes and toxins
 - d. Protect the bacteria from plasmolysis
5. Pseudomonas aeruginosa is
 - a. Peri-trichous bacteria
 - b. Lopho-trichous bacteria
 - c. Amphi-trichous bacteria
 - d. Monotrichous bacteria
6. Short rods, motile by single polar flagellum :
 - a. Lactobacillus
 - b. Spirochaeta
 - c. Vibrio
 - d. Streptococcus
7. Genetic information of bacteria is carried on
 - a. Messenger RNA
 - b. Transfer RN|A
 - c. Transcript RNA
 - d. Double – Stranded DNA
8. Thermophilic bacteria grow at
 - a. 60 – 80°C
 - b. 0 - 20°C
 - c. 37°C
 - d. 100 - 120°C

9. Acidophilic bacteria grow at
 - a. pH 7.2 – 7.4
 - b. pH 5.0 – 5.5
 - c. pH 8.5 – 9.0
 - d. None of the above
10. Mycoplasma is
 - a. Neutrophilic bacteria
 - b. Acidophilic bacteria
 - c. Basophilic bacteria
 - d. All of the above
11. It is the adaptation of bacteria to the fresh medium
 - a. Lag phase
 - b. Decline phase
 - c. Logarithmic Phase
 - d. Stationary phase
12. Bacteria which do not cause hemolysis is
 - a. Beta-Hemolytic
 - b. Alpha-Hemolytic
 - c. Gama Hemolytic
 - d. None of the above
13. Normal flora of Lower intestine are all of the following except:
 - a. Staphylococci
 - b. Diphtheroids
 - c. Shigella
 - d. Lactobacillus
14. Opportunistic pathogens are all of the following except:
 - a. Cause a disease when the host defense are suppressed.
 - b. Are normal flora of healthy body
 - c. Are greatly harmful
 - d. Do not invade the body or tissue.
15. It is circulation of bacterial toxins in blood
 - a. Pyaemia
 - b. Toxemia
 - c. Bacteremia
 - d. Septicemia
16. Inhibit the growth of micro-organisms
 - a. Germicidal
 - b. Germistatic
 - c. Pathogenicity
 - d. Virulence
17. For disinfection of mattresses :
 - a. Hot air oven

- b. Autoclave
c. Ethylene Oxide
d. Hydrogen Peroxide
18. For sterilization of serum :
a. Autoclave
b. Boiling
c. Steaming
d. Filtration
19. Obligatory Anaerobic bacteria:
a. Clostridium Tetani
b. Salmonella
c. M. Tuberculosis
d. E-coli
20. Pyschrophilic bacteria grow at:
a. 100°C
b. 60°C
c. 14°C
d. 37°C
21. Bacteria which contain chlorophyll
a. Heterotrophic bacteria
b. Autotrophic bacteria
c. Photosynthetic bacteria
d. All of the above
22. Selective media for fungi is:
a. Sabouraud's dextrose agar
b. Lowenstein – Jensen Media
c. Loeffler's media
d. Chocolate agar
23. Tricophyton is one of
a. Yeast
b. Moulds
c. Dermatophyte
d. Dimorphic Fungi
24. Plasmomyces is one of
a. Dermatophytes
b. Dimorphic Fungi
c. Yeast
d. Moulds
25. Mechanism of action of penicillin:
a. Inhibit protein synthesis
b. Inhibit Folic acid pathway
c. Inhibit peptidoglycan cross – linking
d. Block peptidoglycan synthesis

26. Antibiotics which inhibit DNA synthesis:
a. Rifampin
b. Quinolones
c. Sulfonamides
d. Tetracyclines
27. Color of gram negative bacteria is
a. Violet
b. Green
c. Red
d. Black
28. Acid Fast Bacteria
a. Salmonella
b. Shigella
c. M. Tuberculosis
d. E – Coli
29. Vibrio Cholera is:
a. Neutrophilic Bacteria
b. Acidophilic Bacteria
c. Basophilic Bacteria
d. All of the above
30. Spherical or avoid cells occurring in chains
a. Staphylococci
b. Streptococci
c. Lactobacillus
d. Spiro chaeta
31. All are Prokaryotic cells except:
a. Fungi
b. Bacteria
c. Chlamydia
d. Mycoplasma
32. Viruses:
a. Contain only DNA or RNA
b. They Contain ribosome
c. Did not affected by antibiotics
d. a+c
33. All of these are essential structure except:
a. Nuclear body
b. Spores
c. Cell wall
d. Plasma Membrane
34. _____ is giving the shape to the bacteria
a. Cytoplasmic Membrane
b. Capsule
c. Cell Wall
d. All of the above

35. One of its functions is selective permeability
- Cell wall
 - Plasma membrane
 - Capsule
 - Spores
36. They are responsible for Haemagglutination Phenomenon
- Flagella
 - Fimbria
 - Capsule
 - Cell wall
37. Clostridium Tetani is:
- Atrichous bacteria
 - Mono-trichous bacteria
 - Amphi-trichous bacteria
 - Peri-trichous bacteria
38. Short curved or straight rods, motile by single polar flagellum
- spirochaeta
 - Vibrio
 - Escherichia
 - Lactobacillus
39. Small gram negative cocci, occur in pairs
- staphylococcus
 - streptococcus
 - neisseria
 - non of the above
40. Transfer of genetic information from one bacterium to another by bacteriophages is:
- Transformation
 - Tansduction
 - Conjugation
 - Mutation
41. Salmonella are:
- Obligatory Aerobic bacteria
 - Obligatory Anaerobic bacteria
 - Facultative Anaerobic bacteria
 - Micro-aerophilic bacteria
42. According to pH, vibrio cholera is
- Osmophilic bacteria
 - Basophilic bacteria
 - Acidophilic bacteria
 - Neutrophilic bacteria
43. Staphylococci are:
- Atrichous bacteria
 - Mono-trichous bacteria
 - Amphi-trichous bacteria
 - Peri-trichous bacteria
44. During replication of DNA, copying errors may occur and this is called
- Conjugation
 - Transduction
 - Transformation
 - Mutation
15. Obligatory Anaerobic bacteria
- grow only in presence of oxygen
 - grow only in absence of oxygen
 - grow either in presence or absence of oxygen
 - grow in presence of oxygen traces and 5 – 10% CO₂
46. Neutrophilic bacteria grow well at
- pH 8.5 – 9.0
 - pH 7.2 – 7.4
 - pH 5.0 – 5.5
 - pH 2.5 – 3.0
47. The rate of cell death increase and bacterial growth stopped, this is
- Adaptation phase
 - Exponential phase .
 - Stationary phase.
 - Decline Phase
48. Beta-hemolytic
- Cause complete hemolysis of RBC's
 - Cause chemical change of Hemoglobin in RBC's
 - Do not cause hemolysis
 - None of them
49. Mesophilic bacteria grow at:
- 37°C
 - 14°C
 - 60°C
 - 120°C
50. Circulation of Bacteria and its toxins in blood

- a. Pyaemia
- b. Toxemia
- c. Bacteremia
- d. Septicemia

51. Disinfections that applied on living or injured tissues:

- a. Sterilization
- b. Antiseptic
- c. Sanitation
- d. Decontamination

52. Hot air oven is used for sterilization of

- a. Glass
- b. Rubber Gloves
- c. Plastic Syringes
- d. Catheters

53. Disinfectant for superficial fungal infection

- a. Phenol
- b. Potassium permanganate
- c. Chlorine
- d. Hypochlorite compounds

54. Rifampin

- a. inhibit cell wall synthesis
- b. inhibit protein synthesis
- c. inhibit folic acid pathway
- d. inhibit mRNA synthesis

55. Transacetylase inactivate

- a. aminoglycosides
- b. chloramphenicol
- c. penicillin
- d. cephalosporins

56. The color of gram positive bacteria is

- a. Yellow
- b. Black.
- c. Pink
- d. Violet

57. Selective media for fungi

- b. blood agar
- b. MacConkey agar
- c. Nutrient agar
- d. Sabouraud's dextrose agar

58. Histoplasma is a :

- a. Systemic mycosis
- b. Sub – Cutaneous mycosis

- c. Cutaneous mycosis
- d. Superficial mycosis

59. All are asexual spores produced by mould except

- a. Conidio – spores
- b. Sporangio – spores
- c. Endospores
- d. Arthro – spores

60. They reproduce only by Asexual reproduction

- a. Blastomycosis
- b. Deutromycosis
- c. Ascomycetes
- d. Zygomycetes

61. The functions of cell wall is all of the following except:

- a. Giving the shape to the bacteria
- b. Carrying somatic antigen
- c. Selective permeability and transport of solutes
- d. Protect the bacteria from plasmolysis

62. Atrichous Bacteria are:

- a. Bacteria contain one flagellum
- b. Bacteria contain 2 flagella
- c. Bacteria without flagella
- d. Bacteria with a tuft of flagella

63. _____ are essential for host cell attachment:

- a. Flagella
- b. Fimbria
- c. Spores
- d. Capsules

64. Irregular clusters of spherical cells:

- a. Streptococcus
- b. Staphylococcus
- c. Lactobacillus
- d. Escherichia

65. Clostridium Botulinum is:

- a. Obligatory Aerobic Bacteria
- b. Facultative Anaerobic Bacteria
- c. Obligatory Anaerobic Bacteria
- d. Micro- aerophilic Bacteria

66. Basophilic Bacteria grow well at:

- a. pH 8.5 – 9.0

- b. pH 7.2 – 7.4
c. pH 5.0 – 5.5
d. None of the above
67. Cells are divided at high & constant rate:
a. Decline Phase
b. Stationary Phase
c. Log Exponential Phase
d. Adaptation Phase
68. The dominant bacterial species in dental plaque are:
a. Coagulase Negative Staphylococci
b. Lactobacillus
c. Bacteroides
d. Streptococcus Sanguis
69. The spread of Pyogenic Bacteria in blood stream to different organs & produce multiple abscess is:
a. Septicemia
b. Bacteremia
c. Toxemia
d. Pyaemia
70. Inhibit the growth of micro organisms
a. Bacteriostatic
b. Bactericidal
c. Fungicidal
d. Germicidal
71. To sterilize fluid damaged by heat:
a. Gaseous Sterilization
b. Heat Sterilization
c. Filtration
d. Ionizing Radiation
72. For water disinfection we use:
a. Hydrogen peroxide
b. Formaldehyde
c. Chlorine
d. Hypochlorite compounds
73. Mechanism of action of penicillin:
a. Block peptidoglycan synthesis
b. Inhibit peptidoglycan cross – linking
c. inhibit folic acid pathway
d. inhibit protein synthesis
74. Sulfonamides:
a. inhibit cell wall synthesis
b. inhibit protein synthesis
c. inhibit DNA synthesis
d. inhibit folic acid pathway
75. Acetylase inactivates:
a. B – Lactam antibiotics
b. Aminoglycosides
c. Cloramphenicol
d. All of the above
76. Ringworm disease is caused by
a. Zygomycetes
b. Ascomycetes
c. Blastomycosis
d. None of the above
17. Histoplasma is one of
a. Superficial Mycosis
b. Cutaneous Mycosis
c. Sub – Cutaneous Mycosis
d. Systemic Mycosis
78. For wet – mount technique we add:
a. NaOH
b. KOH
c. H₂ O₂
d. All of the above
79. Eukaryotic cells:
a. Bacteria
b. Spirochetes
c. Protozoa
d. Mycoplasma
80. All of these about viruses is correct except:
a. Obligatory intracellular parasites
b. Did not contain ribosomes.
c. Contain DNA and RNA
d. Can pass through bacterial filter
81. They are transmitted by arthropods
a. Chlamydia
b. Spirochetes
c. Mycoplasma
d. All of the above
82. In the past they were listed as large viruses
a. Rickettsia
b. Mycoplasma
c. Chlamydia
d. None of the above
23. Bacteria multiply by:
a. Replication cycle
b. Simple binary fission
c. Sexual reproduction
d. All of the above

84. One of the accessory structures
 a. Cell wall
 b. Plasma Membrane
c. Flagella
 d. Cytoplasm
85. It protects bacteria from antibiotics
a. Capsule
 b. Cell membrane
 c. Flagella
 d. Fimbria
86. Vibrio cholera is:
a. Mono –trichous bacteria
 b. Atrichous bacteria
 c. Lopho-trichous bacteria
 d. Peri-trichous bacteria
87. Short rods, motile by peritrichous flagella
 a. Spirochaeta
 b. Lactobacillus
c. Escherichia coli
 d. Vibrio
88. To take up soluble DNA fragments derived from other, closely related species is:
b. Transformation
 c. Transduction
 d. Conjugation
89. Tuberculosis are
 a. micro-aerophilic
 b. Facultative anaerobic
 c. Obligatory anaerobic
d. Obligatory aerobic
90. According to pH, Lactobacillus
 a. Neutrophilic bacteria
b. Acidophilic bacteria
 c. Basophilic bacteria
 d. None of the above
- 91- function of the cell wall is:
 a- support plasma membrane
 b- cell division
 c- Replication
 d- Non of the above
 e-
- 92 - function of cytoplasmic membrane is:
 a- transport of solutes into the cell
 b- excretion of hydrolytic
c- a & c
 d- all of the above

- 93- capsules staining done by:
 a- Indian ink
 b- polychrome methylene blue:
c- a & b
 d- non of the above
- 94- function of bacterial capsule is:
 a- essential for bacterial virulence
 b- help in diagnosis of bacteria
 c- protection bacteria
d- all of the above
- 95- function of bacterial flagella is:
 a- essential for motility
 b- important for diagnosis
 c- carrying flagellar antigen
d- all of the above
- 96- bacteria classification according to bacterial flagella:
 a- atrichous
 b- mono-trichous
 c- amphi- atrichous
d- all of the above
- 97- types of bacterial motility:
 1- motility by flagella
 2- motility by cell body
 3- gliding motility
4- all of the above
- 98- fimbriae are differing from flagella in the:
 a- shorter
 b- more number
 c- present in motile and non-motile bacteria
d- all of the above
- 99- function of fimbriae:
 a- essential for host cell attachment
 b- responsible for hemagglutination
c- a & b
 d- non of the above
- 100- bacterial endospores use to resistant of:
 a- disinfection
 b- dryness
 c- heat
d- all of the above

Lab 1 – Gram Reactions

1) Which of the following is NOT Gram-positive?

- a) *Listeria monocytogenes*
- b) *Streptococcus pneumoniae*
- c) *Staphylococcus saprophyticus*
- d) *Klebsiella pneumoniae*
- e) *Streptococcus pyogenes*

2) Which of the following is rod shaped?

- a) *Staphylococcus aureus*
- b) *Neisseria gonorrhoeae*
- c) *Bacillus anthracis*
- d) *Borrelia burgdorferi*
- e) *Moraxella catarrhalis*

3) Which of the following is the best description of *Listeria monocytogenes*?

- a) Gram-negative spirals
- b) Gram-negative cocci
- c) Gram-negative rods
- d) Gram-positive cocci
- e) Gram-positive rods

4) Which of the following would be the best magnification power for viewing bacteria such as *Escherichia coli* with an oil immersion microscope?

- a) 1x
- b) 10x
- c) 100x
- d) 1,000x
- e) 10,000x

Lab 2 – Gram-positive Cocci

1) Which of the following tests would involve looking for “bubbling” after application of the test agent?

- a) Catalase
- b) Coagulase
- c) Bile esculin
- d) Bacitracin
- e) Optochin

2) If a bacteria ferments mannitol salt, which is a peachy red color, what color will it change to if the test is positive?

- a) Blue
- b) Red
- c) Green
- d) Yellow
- e) Black

3) *Streptococcus pneumoniae* is the number one cause of all of the following EXCEPT:

- a) Adult meningitis
- b) Neonatal meningitis
- c) Community acquired pneumonia
- d) Otitis media in children

4) In the hemolysis test on a blood agar plate, an incomplete hemolysis will show streaks of what color?

- a) Blue
- b) Clear
- c) Green
- d) Yellow
- e) Black

5) Which of the following Gram-positive cocci is catalase positive and coagulase positive?

- a) *Staphylococcus epidermidis*
- b) *Staphylococcus saprophyticus*
- c) *Staphylococcus aureus*
- d) *Streptococcus pyogenes*
- e) *Streptococcus agalactiae*

6) Which of the following Gram-positive cocci is (gamma) hemolytic?

- a) *Streptococcus pneumoniae*
- b) *Viridans strep*
- c) *Streptococcus pyogenes*
- d) *Streptococcus agalactiae*
- e) *Enterococcus*

Lab 3 – Gram-negative Bacteria

1) Which of the following Gram-negative rods does not ferment glucose and is oxidase positive?

- a) *E. coli*
- b) *P. vulgaris*
- c) *P. aeruginosa*
- d) *Salmonella*
- e) *Shigella*

2) In the lactose fermentation MacConkey test, what color would indicate a positive test?

- a) Black
- b) Pink
- c) Blue
- d) Purple
- e) Green

3) Which of the following Gram-negative rods ferments glucose, is oxidase negative, ferments lactose, and is indole positive (tryptophan metabolizing)?

- a) *E. coli*
- b) *Shigella*
- c) *K. pneumoniae*
- d) *Salmonella*
- e) *P. vulgaris*

4) A child presents with vomiting and bloody stools. A bacterial culture yields Gram negative rods that are H₂S negative. Which of the following is most likely?

- a) *E. coli*
- b) *Shigella*
- c) *K. pneumoniae*
- d) *Salmonella*

e) *P. vulgaris*

5) Which of the following can swarm on a plate, making it difficult to distinguish colonies?

- a) *E. coli*
- b) *Shigella*
- c) *K. pneumoniae*
- d) *Salmonella*
- e) *P. vulgaris*

6) What is the primary virulence factor for *E. coli*?

- a) Inflammatory response
 - b) cAMP inducing toxin
 - c) Toxin inhibits protein synthesis
 - d) LPS
 - e) Superantigen
- 7) What is the primary virulence factor for *P. aeruginosa*?
- a) cAMP inducing toxin
 - b) Capsule
 - c) Spore
 - d) Teichoic acid
 - e) Type III secretion system

Lab 4 – Chocolate Agar and CHO Fermenters

1) Bacteria are cultured and found to be Gram-negative diplococci that grow on chocolate agar but not blood agar. Which of the following is the most likely?

- a) *Staphylococci*
- b) *Streptococci*
- c) *Mycoplasma*
- d) *Haemophilus*
- e) *Neisseria*

2) Which of the following is a dextrose (glucose) fermenter and is a maltose and sucrose non-fermenter?

- a) *H. influenza*
- b) *H. parainfluenza*
- c) *S. pyogenes*
- d) *N. gonorrhea*
- e) *N. meningitis*

3) A sexually active male presents with a painful sore (ulcer on his penis) and inguinal lymphadenopathy. Culture reveals Gram-negative coccobacilli that grow on chocolate agar but not blood agar. Which of the following is the most likely?

- a) *C. trachomatis*
- b) *T. pallidum*
- c) *N. gonorrhea*
- d) *H. ducreyi*
- e) *H. influenza*

4) What is the required growth factor associated with the bacteria in the previous question?

- a) Heme (X)
- b) NAD (V)

c) Heme and NAD (X and V)

d) Cysteine

e) Cysteine and heme (X)

5) Which of the following describes *Moraxella catarrhalis* and *Neisseria gonorrhoeae* in regards to Trio-tube (CHO) fermentation, where yellow is positive and peach is negative?

- a) Yellow for dextrose, peach for maltose, peach for sucrose
- b) Yellow for dextrose, yellow for maltose, peach for sucrose
- c) Yellow for dextrose, yellow for maltose, yellow for sucrose
- d) Peach for dextrose, yellow for maltose, yellow for sucrose
- e) Peach for dextrose, peach for maltose, yellow for sucrose

6) What is the primary virulence factor for *N. gonorrhea*?

- a) Capsule
- b) Teichoic acid
- c) Pili
- d) Toxin
- e) M protein

7) What is the primary virulence factor for *H. influenza*?

- a) Capsule
- b) Teichoic acid
- c) Pili
- d) Toxin
- e) M protein

8) A 1-year-old infant presents with a fever after her parents noticed she was unusually drowsy. The physician notices neck rigidity and occasional seizures. Bacterial culture reveals Gram-negative coccobacilli that grow on chocolate agar but not blood agar.

- a) *H. parainfluenza*
- b) *H. influenza*
- c) *N. gonorrhea*
- d) *S. pyogenes*
- e) *N. meningitis*

9) What is the required growth factor associated with the bacteria in the previous question?

- a) Heme (X)
- b) NAD (V)
- c) Heme and NAD (X and V)
- d) Cysteine
- e) Cysteine and heme (X)

1 – Introduction to Medical Microbiology

1.1) Which of the following is smallest in physical size?

- a) Viruses
- b) Bacteria
- c) Fungi

d) Parasites

1.2) The bacterial cell wall is complex, consisting of one of two basic forms: a Gram positive cell wall with a ____ peptidoglycan layer, and a Gram- ____ cell wall with a ____ peptidoglycan layer and an overlying outer membrane.

- a) Thick; Neutral; Thin
- b) Thin; Negative; Thin
- c) Thick; Negative; Thick
- d) Thin; Negative; Thick
- e) Thick; Negative; Thin

1.3) Bacteria is ____ and fungi is ____.

- a) Prokaryotic; Prokaryotic
- b) Prokaryotic; Eukaryotic
- c) Eukaryotic; Eukaryotic
- d) Eukaryotic; Prokaryotic

1.4) Which of the following is NOT a virus?

- a) Common cold
- b) Ebola
- c) Gastroenteritis
- d) Malaria
- e) Rabies

2) Which of the following is NOT considered a sterile location in which an exogenous infection could take place?

- a) Brain
- b) Lungs
- c) Mouth
- d) Peritoneum

3) Which of the following is commonly endogenous as opposed to exogenous?

- a) Clostridium tetani (causes tetanus)
- b) Neisseria gonorrhoeae (causes gonorrhoea)
- c) Coccidioides immitis (causes valley fever)
- d) Entamoeba histolytica (causes amoebic dysentery)
- e) Clostridium perfringens (in normal flora)

4) Which of the following does NOT limit the ability of the laboratory to provide a definitive answer as to the cause of a disease?

- a) Gram reactivity of specimen
- b) Quality of specimen collected
- c) Specimen transport from patient to lab
- d) Techniques used to demonstrate the microbe in sample

2 – Bacterial Classification

1.1) Which of the following determines whether a group of organisms that is from the same genus and species arises from a common source or from distinct sources?

- a) Serotyping
- b) Biotyping
- c) Phage typing
- d) DNA hybridization
- e) Antibigram patterning

1.2) Which of the following uses antibodies to detect bacterial antigens?

- a) Serotyping
- b) Biotyping
- c) Phage typing
- d) DNA hybridization
- e) Antibigram patterning

1.3) Which of the following is NOT a use for serotyping?

- a) Identify organisms that are inert in biochemical testing
- b) Identify organisms that are difficult or impossible to grow
- c) Identify organisms that are associated with specific disease syndromes
- d) Identify organisms that need to be identified rapidly
- e) Identify organisms that are susceptible to viral infections

2) Which of the following is NOT true regarding DNA hybridization?

- a) It was used initially to determine the relationship among bacterial isolates
- b) It can determine whether two isolates are in the same genus or species
- c) Molecular probes can be used with it to confirm an organism's identity
- d) It requires growing the organism, even in clinical specimens
- e) It can aid in the rapid detection of slow-growing organisms

3.1) Of the following aerobic, Gram-positive cocci, which is catalase-positive?

- a) Aerococcus
- b) Enterococcus
- c) Staphylococcus
- d) Lactococcus
- e) Streptococcus

3.2) Which of the following is NOT an aerobic Gram-positive rod?

- a) Bacillus
- b) Listeria
- c) Micrococcus
- d) Turicella
- e) Mycobacterium

3.3) Which of the following is Gram-positive?

- a) Neisseria
- b) Enterobacteriaceae
- c) Helicobacter
- d) Legionella
- e) Thermophilic actinomycetes

3.4) Which of the following is aerobic?

- a) Anaerococcus
- b) Cardiobacterium

- c) Peptostreptococcus
- d) Bifidobacterium
- e) Eubacterium

3.5) Which of the following would be unsusceptible to penicillin?

- a) Mycoplasma (lacks cell wall)
- b) Borrelia (causes Lyme disease)
- c) Leptospira (causes yellow fever)
- d) Chlamydia (sexually transmitted disease)
- e) Rickettsia (causes Rocky Mountain spotted fever)

3 – Bacterial Structure

1) Comparing eukaryotic and prokaryotic cells, which of the following is NOT true?

- a) Eukaryotes are larger than prokaryotes
- b) Prokaryotes have no nuclear membrane
- c) Eukaryotes have a diploid genome and prokaryotes have a haploid genome
- d) Prokaryotes have cytoplasm rich in 70S ribosomes
- e) Eukaryotes and prokaryotes reproduce sexually and have cell walls

2) In general, Gram-negative bacteria are more pathogenic and Gram-positive bacteria are more susceptible to B-lactam antibiotics such as penicillin. Which of the following best describes the steps, in order, of Gram staining for peptidoglycan?

- a) Apply crystal violet stain => Add mordant => Add alcohol or acetone => Counterstain with safranin or basic fuchin
- b) Apply mordant stain => Add crystal violet => Add alcohol or acetone => Counterstain with safranin or basic fuchin
- c) Apply crystal violet stain => Add alcohol or acetone => Add mordant => Counterstain with safranin or basic fuchin
- d) Apply safranin or basic fuchin stain => Add mordant => Add alcohol or acetone => Counterstain with crystal violet
- e) Apply safranin or basic fuchin stain => Add alcohol or acetone => Add mordant => Counterstain with crystal violet

3.1) Which of the following best describes the shape of Streptococcus pneumoniae, Moraxella catarrhalis, Neisseria gonorrhoeae, and Neisseria meningitidis?

- a) Coccus
- b) Bacillus
- c) Spirillum
- d) Diplococcus
- e) Pleomorphic

3.2) Which of the following best describes the shape of nocardia and actinomyces (subfamily streptomyces produce about 70% of all known antibiotics)?

- a) Coccus
- b) Bacillus
- c) Spirillum

- d) Diplococcus
- e) Filamentous

3.3) Hepatitis B is a virus that is capable of showing variable appearance. Which of the following terms best describes this?

- a) Pleomorphic
- b) Coccus
- c) Diplococcus
- d) Filamentous
- e) Pseudococcus

4) Which of the following structures is used in determining if an organism will be Gram positive (G+) or Gram-negative (G-)?

- a) Mitochondria
- b) Flagella
- c) Cell wall
- d) Ribosomal structure
- e) Chromosomes

5) Which of the following would be found in Gram-negative bacteria? (best answer)

- a) Teichoic acids and lipoteichoic acids
- b) Periplasmic space and LPS
- c) Teichoic acids and porins
- d) Teichoic acids, lipoteichoic acids, and porins
- e) Periplasmic space, LPS, and porins

6.1) Which of the following best describes Gram-negative bacteria?

- a) Thick layer of peptidoglycan and no outer membrane
- b) Thick layer of peptidoglycan and an outer membrane
- c) Thin layer of peptidoglycan and no outer membrane
- d) Thin layer of peptidoglycan and an outer membrane

6.2) The peptidoglycan forms a meshlike layer around the cell, consisting of a polysaccharide polymer cross-linked by what kind of bonds?

- a) Van der Waals
- b) Peptide
- c) Electrostatic
- d) Sulfide
- e) Hydrogen

6.3) The cross-linked bonds are between a terminal D-____ from one chain and a diamino amino acid from the other chain. A pentaglycine bridge (gly5) expands the cross-link in Staphylococcus aureus.

- a) Alanine
- b) Valine
- c) Proline
- d) Arginine
- e) Tryptophan

7.1) Which of the following functions in mating and adhesion to host cells?

- a) Pili

- b) Capsules
- c) Flagella
- d) Plasmids
- e) Outer membrane

7.2) Which of the following, along with M protein, allows organisms to escape from host immune recognition?

- a) Pili
- b) Capsule
- c) Flagella
- d) Plasmid
- e) Outer membrane

7.3) Which of the following can contains genes to make an organisms antibiotic resistant?

- a) Pili
- b) Capsule
- c) Flagella
- d) Plasmid
- e) Outer membrane

7.4) Which of the following is an exception in that they are acid-fast staining in regards to their peptidoglycan layer?

- a) Bacillus
- b) Listeria
- c) Micrococcus
- d) Turicella
- e) Mycobacterium

8.1) In the first phase of peptidoglycan synthesis, glucosamine is enzymatically converted to N-acetylmuramic acid (MurNAc), then energetically activated to form what pentapeptide precursor?

- a) GTP-MurNAc-pentapeptide
- b) ATP-MurNAc-pentapeptide
- c) GDP-MurNAc-pentapeptide
- d) UTP-MurNAc-pentapeptide
- e) UDP-MurNAc-pentapeptide

8.2) In the second phase of peptidoglycan synthesis, the pentapeptide is attached to the bactoprenol “convey or belt” in the cytoplasmic membrane. What is then added to make the disaccharide building block of the peptidoglycan?

- a) AlaNAc
- b) AlaNAla
- c) GlcNAc
- d) GluNAc
- e) GluNAla

8.3) In the third phase of peptidoglycan synthesis, where is the disaccharide:peptide precursor moved to?

- a) Cytoplasm
- b) Mitochondria
- c) Ribosomes
- d) Outside of the cell
- e) Inside the nucleus

9) What bacterial cell component is affected by cephalosporin, penicillin, and other B-lactam antibiotics?

- a) Lipopolysaccharide
- b) DD-Carboxypeptidase
- c) Transpeptidases (PBPs)
- d) B-Lactamase
- e) Autolysins

10) Some G+, but never G-, bacteria form spores. These include members of the genera:

- a) Bacillus and Clostridium
- b) Staphylococcus and Streptococcus
- c) Bacillus and Streptococcus
- d) Clostridium and Staphylococcus
- e) Bacillus and Staphylococcus

11) Which of the following is NOT true regarding spores?

- a) They can allow bacteria to exist in suspended animation for centuries
- b) It contains a high concentration of calcium bound to dipicolinic acid
- c) It contains a complete copy of the chromosomes
- d) It contains high concentrations of the essential proteins and ribosomes
- e) It protects the DNA from intense heat, radiation, and attack by most enzymes

4 – Bacterial Metabolism and Growth

1) What is the initial phase of bacterial growth (on the bacterial growth curve) called?

- a) Decline
- b) Stationary phase
- c) Log phase
- d) Exponential phase

2) Clostridium perfringens cannot grow with oxygen present and thus is a(n) ____ while Mycobacterium tuberculosis requires oxygen and thus is a(n) ____.

- a) Obligate anaerobe; Obligate aerobe
- b) Obligate aerobe; Obligate anaerobe
- c) Obligate anaerobe; Obligate anaerobe
- d) Obligate aerobe; Obligate aerobe
- e) Facultative anaerobe; Facultative anaerobe

3) At the onset of bacterial transcription, what allows for the recognition of a particular sequence of nucleotides in the DNA (promoter)? Some bacteria encode several of these to allow transcription of a group of genes under special conditions, such as heat shock, starvation, special nitrogen metabolism, or sporulation.

- a) Operon
- b) Epsilon factor
- c) Alpha factor
- d) Sigma factor
- e) Delta factor

4) Which of the following best describes the function of fMet-tRNA?

- a) Protein folding into the tertiary structure
- b) Initiating transcription allowing for RNA copying
- c) Attaching to P-site during translation allowing for 70S assembly
- d) Attaching to A-site during translation allowing for 30S binding
- e) Attaching to the stop codon during translation to release the protein

5 – Bacterial Genetics Match the following descriptions with their terms:

1.1) Replication of bacterial DNA begins at this chromosome sequence

- d) Ori C

1.2) Linear plasmids that can autonomously replicate

- f) Replicon

1.3) Small genetic elements that replicate independently

- e) Plasmid

1.4) Groups of one or more structural genes from promoter to terminator

- a) Operons

1.5) Operons with many structural genes

- c) Polycistronic

1.6) Plasmids, such as E. coli F, that can integrate into host chromosome

- g) Episome

1.7) Mobile genetic elements; jumping genes

- h) Transposons

1.8) Coding genes

- b) Cistrons

2) By what mechanism do pathogenicity (virulence) islands coordinate the expression of a system of virulence factors?

- a) Replicons
- b) Cistrons
- c) Polycistronic
- d) Transposons
- e) Episomal

3.1) Which of the following is the process by which bacteria take up fragments of naked DNA and incorporate them into their genomes?

- a) Conjugation
- b) Transformation
- c) Generalized transduction
- d) Specialized transduction

3.2) Which of the following results in one-way transfer of DNA from a donor (or male) cell to a recipient (or female) cell through the sex pilus?

- a) Conjugation
- b) Transformation
- c) Generalized transduction
- d) Specialized transduction

3.3) Which of the following genetic transfer mechanisms is mediated by bacterial viruses where the selection of the sequences is random because of accidental packaging of host DNA into the phage capsid?

- a) Conjugation
- b) Transformation
- c) Generalized transduction
- d) Specialized transduction

4.1) In which of the following is competency required?

- a) Conjugation
- b) Transformation
- c) Transduction

4.2) Which of the following does NOT always require homologous recombination to stabilize DNA?

- a) Conjugation
- b) Transformation
- c) Transduction

5) Which of the following best describes a lysogen, such as the E. coli bacteriophage lambda?

- a) Causes the host cell to lyse
- b) Causes the bacteriophage to lyse
- c) Integrates into host and lyses the host
- d) Integrates into the host without killing the host
- e) Integrates into the host and starts a programmed death cycle

6 – Viral Classification

1) Which of the following depends on the biochemical machinery of the host cell for replication and reproduction occurs by assembly of the individual components rather than by binary fission?

- a) Bacteria
- b) Fungi
- c) Viruses
- d) Parasites

2) Which of the following is NOT a property of viruses?

- a) Viruses are filterable agents
- b) Viruses cannot make energy independently of a host cell
- c) Viral genomes may be RNA or DNA but not both
- d) Viral components must self-assemble
- e) Viruses are living organisms

3) Which of the following is NOT a means of classification (naming) of viruses?

- a) Structure
- b) Color
- c) Biochemical characteristics
- d) Disease caused
- e) Means of transmission

4) What consists of a nucleic acid genome packaged into a protein coat (capsid) or a membrane (envelope)?

- a) Virus
- b) Virion
- c) Bacteriophage
- d) Capsomere
- e) Pentamer

5.1) Which of the following is NOT solely a structure of enveloped viruses; being a structure of non-enveloped viruses as well?

- a) Nucleocapsid
- b) Lipid bilayer
- c) Structural proteins
- d) Glycoproteins

5.2) Viruses with naked capsids (non-enveloped) are generally resistant to drying, acid, and detergents, including the acid and bile of the enteric tract. Many of these viruses are transmitted by the fecal-oral route and can endure transmission even in sewage.

- a) True
- b) False
- c) Neither true nor false

Match the following descriptions with their term:

6.1) Bind to erythrocytes and adenovirus penton

- c) Hemagglutinin (HA)

6.2) A long fiber attached to each adenovirus penton to bind to target cells

- a) Viral attachment protein (VAP)

6.3) Asparagine-linked (N-linked) carbohydrate that extends through the envelope

- b) Viral glycoprotein

7) RNA-dependent RNA polymerase (RDRP) associates with the (____) RNA genome of the orthomyxoviruses, paramyxoviruses, and rhabdoviruses to form helical nucleocapsids and uses ____ as a template.

- a) +; RNA
- b) -; RNA
- c) +; DNA
- d) -; DNA

8) Which of the following is NOT true regarding Influenza A (orthomyxovirus)?

- a) It is a (-) RNA virus
- b) It has a segmented genome

- c) It has the glycoprotein hemagglutinin (HA)
- d) It has the glycoprotein neuraminidase (NA)
- e) Like bunyaviruses, it does not have matrix proteins

9.1) What viral replication step takes place after the attachment and penetration phase?

- a) Transcription
- b) Uncoating
- c) Replication
- d) Protein synthesis
- e) Assembly

9.2) The protein synthesis step of viral replication is sensitive to which of the following antiviral drugs?

- a) Interferon
- b) Amantadine
- c) Arildone
- d) Rimantadine
- e) Tromantadine

10.1) What is the phase in which an extracellular infectious virus is NOT detected?

- a) Early phase
- b) Late phase
- c) Eclipse period
- d) Latent period
- e) Infection period

10.2) Which of the following best describes burst size?

- a) Number of viruses entering a cell to cause infection
- b) Number of viruses that can enter a cell
- c) Yield of infectious viruses per cell
- d) Yield of viral particles per cell (including defective particles)
- e) Maximum physical yield of viruses per cell

10.3) What is the normal process used by the cell for the uptake of receptor-bound molecules such as hormones, low-density lipoproteins, and transferrin?

- a) Exocytosis
- b) Endocytosis
- c) Pinocytosis
- d) Osmosis
- e) Viropexis

10.4) How do picornaviruses and papovaviruses enter the host cell, in which hydrophobic structures of capsid proteins may be exposed after viral binding to the cells, and these structures help the virus or the viral genome slip through (direct penetration) the membrane?

- a) Exocytosis
- b) Endocytosis
- c) Pinocytosis
- d) Osmosis
- e) Viropexis

11) Which of the following is true for RNA viruses (not DNA viruses)?

- a) Not transient or labile (adaptable)
- b) Viral genomes remain in the infected cell
- c) Are prone to mutation
- d) Viral genes must interact with host transcriptional machinery
- e) Viral gene transcription is temporarily regulated

12) Viruses can escape antibody detection via _____ of the genome and _____ can merge cells into multinucleated giant cell (syncytia), which become huge virus factories.

- a) Traversal of cell-cell bridges; Virus-induced cell-cell fusion
- b) Virus-induced cell-cell fusion; Vertical transmission
- c) Virus-induced cell-cell fusion; Traversal of cell-cell bridges
- d) Vertical transmission; Traversal of cell-cell bridges
- e) Vertical transmission; Virus-induced cell-cell fusion

13.1) All of the following are DNA viruses EXCEPT:

- a) Parvovirus
- b) Papovavirus
- c) Hepadnavirus
- d) Adenovirus
- e) Bunyavirus

13.2) All of the following are RNA viruses EXCEPT:

- a) Orthomyxovirus
- b) Paramyxovirus
- c) Poxvirus
- d) Rhabdovirus
- e) Filovirus

13.3) Which of the following is enveloped (not a naked capsid)?

- a) Herpesviridae
- b) Polyoma viridae
- c) Papilloma viridae
- d) Parvoviridae
- e) Adenoviridae

13.4) Which of the following has a naked capsid (not enveloped)?

- a) Paramyxoviridae
- b) Picornaviridae
- c) Togaviridae
- d) Flaviviridae
- e) Orthomyxoviridae

9 – Commensal & Pathogenic Microbial Flora

1.1) Which of the following describes microbes that are normally in and on the human body that is in a continual state of flux determined by age, diet, hormonal state, health, personal hygiene, and other factors?

- a) Normal flora
- b) Resident (commensal) flora
- c) Transient flora

1.2) Which of the following describes microbes that are permanent in a particular place in the body, but may change with stages of life?

- a) Normal flora
- b) Resident (commensal) flora
- c) Transient flora

Match the following descriptions with their terms:

1.3) Causes most human infections

- a) Opportunistic pathogens

1.4) Organisms always associated with disease

- c) Strict pathogens

1.5) Avirulent organism replacement in a hospital

- b) Nosocomial pathogens

2) Which of the following is NOT considered a sterile area?

- a) Fetus
- b) Brain
- c) Sinuses and middle ear
- d) Larynx, trachea, bronchioles, lower airway
- e) GU tract including anterior urethra, vagina, and cervix

3) Which of the following is NOT a function of normal flora to the host?

- a) Metabolizes food products
- b) Provides essential growth factors
- c) Protects against infection with highly virulent microorganisms
- d) Maintains sterile environments
- e) Stimulates immune responses

4) Which of the following is defined as what occurs when the interaction between microbe and human leads to a pathologic process characterized by damage to the host?

- a) Colonization
- b) Infection
- c) Disease
- d) Microbiology
- e) Thrush

10 – Sterile Techniques/Disinfection

1.1) Which of the following would NOT be a sterilant, meant to destroy all microbes?

- a) Ethylene oxide
- b) UV radiation
- c) Microwave radiation
- d) Glutaraldehyde and peracetic acid
- e) Hydrogen peroxide

1.2) Which of the following would NOT be an antiseptic agent, meant to safely reduce the number of microbes on skin surfaces?

- a) Alcohol
- b) Iodophors
- c) Chlorhexidine
- d) Plasma gas
- e) Triclosan

2.1) Alcohol (ethyl, isopropyl) at 70%-95%

- b) intermediate

2.2) Hydrogen peroxide at 3%-25%

- a) high

2.3) Quaternary ammonium compounds at 0.4%-1.6%

- c) low level

2.4) Chlorine compounds at 100-1000 ppm of free chlorine

- a) high

2.5) Glutaraldehyde, chlorine dioxide, and peracetic acid

- a) high

19 – Mechanisms of Bacterial Pathogenesis

1.1) Which bacterial virulence mechanism does superantigen fall into?

- a) Adhesion
- b) Colonization
- c) Invasion
- d) Immune response inhibitor
- e) Toxins

1.2) Which bacterial virulence mechanism does capsid fall into?

- a) Adhesion
- b) Colonization
- c) Invasion
- d) Immune response inhibitor
- e) Toxins

1.3) Helicobacter pylori is able to survive in the acidic environment of the human stomach by producing the enzyme urease. This is an example of which of the following?

- a) Adhesion
- b) Colonization
- c) Invasion
- d) Immune response inhibitor
- e) Toxins

Match the following bacteria with their adherence mechanism:

2.1) Escherichia coli

- c) Type 1 fimbriae, P fimbriae, CFA fimbriae

2.2) Neisseria gonorrhoeae

- a) Fimbriae

2.3) Mycoplasma pneumoniae

- d) Protein P1

2.4) Vibrio cholerae

- b) Type 4 pili

3) Which of the following cause cell lysis via degradative enzymes, cause reactions in specific target tissues via specific receptor-binding proteins, and cause system responses via the release of cytokines?

- a) Adhesion
- b) Colonization
- c) Invasion
- d) Immune response inhibitor
- e) Toxins

4) Which of the following activate T-cells by binding simultaneously to a T-cell receptor and a major histocompatibility complex class II (MHC II) molecule on another cell, leading to the release of large amounts of interleukins and an autoimmune-like response?

- a) Degradative enzymes
- b) Cytotoxic proteins
- c) Endotoxin
- d) Superantigen
- e) Capsule

5.1) The lipopolysaccharide (LPS) produced by what kind of organism is an even more powerful activator of acute phase and inflammatory reactions (endotoxin)?

- a) G+ bacteria
- b) G- bacteria
- c) DNA viruses
- d) RNA viruses
- e) Fungi

5.2) An exotoxin can cause damage to the host by destroying cells or disrupting normal cellular metabolism. An exotoxin is a soluble protein that can be excreted by all of the following organisms EXCEPT:

- a) Viruses
- b) Bacteria
- c) Fungi
- d) Algae
- e) Protozoa

6) Which of the following would be a response to high concentrations of endotoxin and not just low concentrations?

- a) Fever
- b) Vasodilation
- c) Hypotension
- d) Inflammatory response
- e) Immune response

7) Dimetric toxins, such as *Corynebacterium diphtheriae*, have the ____ subunit binding to a specific cell receptor while the ____ subunit is transferred into the cell. *C. diphtheriae* ____ elongation factor-2, resulting in cell death.

- a) B; A; Inhibits
- b) A; B; Inhibits
- c) B; A; Activates
- d) A; B; Activates

8.1) What is the gene location for the botulinum toxin?

- a) Plasmid
- b) Chromosomal
- c) Phage

8.2) What is the gene location for the tetanus toxin?

- a) Plasmid
- b) Chromosomal
- c) Phage

8.3) What is the biological effect of the botulinum toxin?

- a) Activation of adenylate cyclase, increase in cAMP level, secretory diarrhea
- b) Inhibition of protein synthesis, cell death
- c) Block of signal transduction mediated by target G proteins
- d) Decrease in neurotransmitter release from inhibitory neurons, spastic paralysis
- e) Decrease in peripheral, presynaptic acetylcholine release, flaccid paralysis

8.4) What is the biological effect of the tetanus toxin?

- a) Activation of adenylate cyclase, increase in cAMP level, secretory diarrhea
- b) Inhibition of protein synthesis, cell death
- c) Block of signal transduction mediated by target G proteins
- d) Decrease in neurotransmitter release from inhibitory neurons, spastic paralysis
- e) Decrease in peripheral, presynaptic acetylcholine release, flaccid paralysis

9) What is the biological effect of the cholera toxin?

- a) Activation of adenylate cyclase, increase in cAMP level, secretory diarrhea
- b) Inhibition of protein synthesis, cell death
- c) Block of signal transduction mediated by target G proteins
- d) Decrease in neurotransmitter release from inhibitory neurons, spastic paralysis
- e) Decrease in peripheral, presynaptic acetylcholine release, flaccid paralysis

10) Which of the following functions in shielding the bacteria from immune and phagocytic responses via polysaccharides (poor immunogen)?

- a) Antigenic mimicry
- b) Antigenic masking
- c) Resistance to lysosomal enzymes
- d) Encapsulation
- e) Destruction of phagocyte

Match the following descriptions with their terms:

11.1) Two different strains of influenza combine to form a new subtype having a mixture of the surface antigens of the two original strains

b) Antigenic shift

11.2) Organisms alters its surface proteins to evade a host immune response

a) Antigenic variation

11.3) Random accumulation of mutations in viral genes recognized by the immune system

c) Antigenic drift

49 – Mechanisms of Viral Pathogenesis

1) Which of the following best describes tropism?

- a) Tissue preference of a virus
- b) Encoded activities that promote the efficiency of viral replication
- c) Loss of virulence factors
- d) Antiviral immune response
- e) Viral disease at the population level

2) In what viral replication phase does secondary viremia occur, which can lead to viral delivery to the liver, brain, skin, and other tissues?

- a) Contagion
- b) Acquisition
- c) Primary site replication
- d) Secondary site replication
- e) Target tissue

3) Which of the viral infection outcomes involves infection without cell death?

- a) Abortive infection
- b) Lytic infection
- c) Persistent infection

Match the following descriptions with their terms:

4.1) Restricts the machinery for transcribing all the viral DNA genes

c) Latent infection

4.2) Multinucleated giant cells

a) Syncytia

4.3) Makes cells undergo uncontrolled proliferation

d) Transformation

4.4) Immortalization of the cell

e) Oncogenic virus

4.5) Occurs in an infected cell that is not killed by the virus

b) Persistent infection

4.6) Which of the following is NOT a characteristic of a transformed cell?

- a) Continued growth without senescence
- b) Alterations in cell morphology and metabolism
- c) Decreased sugar transport
- d) Increased cell growth rate and ability to grown into foci in semisolid agar
- e) Lost of cell-contact inhibition of growth

Match the inclusion bodies formed with the causative agent:

5.1) Negri bodies (intracytoplasmic)

e) Rabies

5.2) Owl's eye (intranuclear)

c) Cytomegalovirus

5.3) Cowdry type A (intranuclear)

f) Herpes simplex virus

5.4) Intranuclear basophilic

a) Adenoviruses

5.5) Intracytoplasmic acidophilic

b) Poxviruses

5.6) Perinuclear cytoplasmic acidophilic

d) Reoviruses

6) Regarding mechanisms of viral cytopathogenesis, _____ viruses use glycoprotein insertion and _____ viruses use disruption of the cytoskeleton and require cell-mediated immunity for lysis of the target cell.

- a) Enveloped; Enveloped
- b) Nonenveloped; Nonenveloped
- c) Enveloped; Nonenveloped
- d) Nonenveloped; Enveloped

Match the following descriptions with their terms:

7.1) Viral disease shared with animals or insects and humans

c) Zoonoses

7.2) Anthropod spreading of viruses such as togavirus and reovirus

d) Arbovirus

7.3) Spreads viral disease to other animals; e.g. mosquitoes

a) Vector

7.4) Maintains and amplifies viruses in the environment

b) Reservoir

8) Which of the following is the correct order from the smaller affected population to the largest?

- a) Epidemic < Pandemic < Outbreak
- b) Pandemic < Epidemic < Outbreak
- c) Pandemic < Outbreak < Epidemic
- d) Outbreak < Pandemic < Epidemic
- e) Outbreak < Epidemic < Pandemic

68 – Role of Viruses in Disease

1.1) Which of the following common sites of viral infection and disease is mostly involved in stomatitis?

- a) Eyes
- b) Nose
- c) Mouth
- d) Throat
- e) Lower respiratory tract

1.2) Which of the following common sites of viral infection and disease is mostly involved in conjunctivitis?

- a) Eyes
- b) Brain
- c) Throat
- d) Enteric
- e) Liver

1.3) Which of the following common sites of viral infection and disease is mostly involved in meningitis?

- a) Eyes
- b) Brain
- c) Throat
- d) Enteric
- e) Liver

1.4) Which of the following common sites of viral infection and disease is mostly involved in mononucleosis?

- a) UG tract
- b) Enteric
- c) Lymphoid
- d) Liver
- e) Heart

1.5) Which of the following common sites of viral infection and disease is mostly involved in infantile rotavirus diarrhea?

- a) UG tract
- b) Enteric
- c) Lymphoid
- d) Liver
- e) Skin and mucous membranes

2) Which of the following is NOT a classic flulike symptom associated with viral infections?

- a) Fever
- b) Malaise
- c) Headache

- d) Body aches
- e) Binging

Match the following descriptions with their terms:

3.1) Large, raised areas of skin

- c) Nodules

3.2) Slightly raised areas of the skin

(immune/inflammatory)

- b) Papules

3.3) Blisters that are likely to contain viruses

- d) Vesicular lesions

3.4) Flat, colored spots

- a) Macules

4.1) Which of the following is NOT an effective means to prevent viral transmission?

- a) Education
- b) Universal precautions
- c) Improved hygiene
- d) Antibiotics
- e) Ensuring all personnel are immunized against common diseases

4.2) According to the U.S. Center of Disease Control and Prevention (CDC), what is the “single most important means of preventing the spread of infection?”

- a) Gloves
- b) Gown
- c) Mask
- d) Hand washing
- e) The “five second rule”

22 – Staphylococcus

1) Which of the following describes the Gram reaction and morphology of Staphylococcus?

- a) G- rods
- b) G- cocci
- c) G+ rods
- d) G+ cocci
- e) G- spirals

Match the virulence factors with its biological effect:

2.1) Cytokine release (superantigen), emesis, loss of brush border

- d) Enterotoxins

2.2) Toxic for many cells including leukocytes, macrophages, and platelets

- b) Cytotoxins

2.3) Vaginal infection, hypovolemia, cytokine release

- e) TSST-1

2.4) Prevents antibody-mediated immune clearance of organisms

- a) Protein A

2.5) Dermatitis; scalded skin syndrome

- c) Exfoliative toxins

Match the enzymes and their description:

3.1) Converts hydrogen peroxide to water and oxygen

- b) Catalase

3.2) Converts fibrinogen to insoluble fibrin, protects organism

- a) Coagulase

3.3) -lactamase, allows for organisms resistance to an antibiotic

- d) Penicillinase

3.4) Can dissolve fibrin clots (fibrinolysin)

- c) Staphylkinase

4) What is the most common reservoir site of S. aureus?

- a) UG tract
- b) Enteric
- c) Lymphoid
- d) Liver
- e) Skin and mucous membranes

5.1) A patient undergoes a procedure to implant a cardiac pacemaker and prosthetic heart valve. One month later, the patient returns with a high fever. Infection is found in the pacemaker pocket, along the pathway of the electrical lead, and near the prosthetic valve. Which of the following is the most likely cause?

- a) Staphylococcus aureus
- b) Staphylococcus epidermidis
- c) Staphylococcus saprophyticus
- d) Viridans Streptococci
- e) E. Coli

5.2) Which of the following diseases would be caused by the toxic activity of Staphylococcus aureus and not the proliferation activity?

- a) Food poisoning
- b) Meningitis
- c) Osteomyelitis
- d) Septic arthritis
- e) Acute endocarditis

5.3) Which of the following is associated with Ritter syndrome in neonates, where it colonizes the cut umbilicus and releases ET-A,B systematically?

- a) Staphylococcus aureus
- b) Staphylococcus epidermidis
- c) Staphylococcus saprophyticus
- d) Viridans Streptococci

e) *E. Coli*

5.4) A sexually active woman develops dysuria, pyuria, and fever suggestive of urinary tract infection. Urine cultures show G+ bacteria in clusters that are catalase positive and coagulase negative. *E. Coli* is ruled out as a cause of the cystitis. Which of the following would be the most likely cause of the cystitis?

- a) Viridans Streptococci
- b) *Streptococcus pyogenes*
- c) *Staphylococcus aureus*
- d) *Staphylococcus epidermidis*
- e) *Staphylococcus saprophyticus*

Match the following descriptions with their terms:

5.5) Coalescence of large, painful, pus-filled cutaneous nodules

d) Carbuncles

5.6) Large, painful, pus-filled cutaneous nodules

c) Furuncles/Boils

5.7) A pus-filled cutaneous vesicle on an erythematous base

a) Impetigo

5.8) Pus-filled cutaneous vesicle involving hair follicles

b) Folliculitis

6) Which of the following would be the best choice of antibiotic (currently) for a strain of *Staphylococcus aureus* that has acquired the *mecA* gene?

- a) Methicillin
- b) Nafcillin
- c) Oxacillin
- d) Dicloxacillin
- e) Vancomycin

23 – Streptococci

1) Which of the following tests would differentiate between Staphylococci and Streptococci, where the former is positive and the latter is negative?

- a) Gram reaction
- b) Bile esculin
- c) Catalase
- d) Coagulase
- e) Optochin

2) Which of the following is NOT a classification schema used to identify Streptococci?

- a) Teichoic acids
- b) Hemolytic patterns
- c) Biochemical (physiologic) properties
- d) Serologic properties (Lancefield groupings)

Match the following Streptococcal pathogens with their hemolytic pattern:

3.1) *S. pyogenes*

b)

3.2) *S. agalactiae*

e) but occasionally

3.3) *S. pneumoniae*

a)

3.4) *S. mutans* (Viridans)

d) or , and very rarely

3.5) *Enterococcus faecalis*

c) but occasionally or

Match the following Streptococcal pathogens with their serologic classification:

3.6) *S. pyogenes*

a) A

3.7) *S. agalactiae*

b) B

3.8) *S. pneumoniae*

e) Nongroupable (no antigen)

3.9) *S. mutans* (Viridans)

e) Nongroupable (no antigen)

3.10) *Enterococcus faecalis*

d) D

4.1) A middle-aged woman presents with low-grade fever and general malaise. Physical exam reveals Janeway lesions, Osler nodes, Roth spots, and splinter hemorrhages under her fingernails. Echocardiogram indicates vegetations on the mitral valve. In the doctor's office, she recounts a dentist appointment a few weeks ago and several bouts of sore throat as a child. Which of the following is the most likely cause?

- a) *Streptococcus pyogenes*
- b) *Streptococcus agalactiae*
- c) *Enterococcus faecalis*
- d) *Streptococcus bovis*
- e) *Streptococcus pneumoniae*
- f) *Streptococcus mutans* (Viridans Streptococci group)

4.2) A young child presents with fever and a skin rash localized around the lips on his arms. The rash appears pustular with yellow crusts. Cultures from the impetigo show Gram-positive cocci in chains that are α -hemolytic. The doctor administers penicillin G and warns the parents that the child may develop transient smoky-colored urine soon. Which of the following is the most likely cause?

- a) *Streptococcus pyogenes*
- b) *Streptococcus agalactiae*

- c) *Enterococcus faecalis*
- d) *Streptococcus bovis*
- e) *Streptococcus pneumoniae*
- f) *Streptococcus mutans* (Viridans Streptococci group)

4.3) An old man develops a UTI five-days after admission to the hospital. His record indicates that he is receiving antibiotic treatment including cephalosporins for an unrelated infection. In treating the patient, physicians check for resistance to vancomycin. Which of the following is the most likely cause?

- a) *Streptococcus pyogenes*
- b) *Streptococcus agalactiae*
- c) *Enterococcus faecalis*
- d) *Streptococcus bovis*
- e) *Streptococcus pneumoniae*
- f) *Streptococcus mutans* (Viridans Streptococci group)

4.4) An elderly man develops low-grade fever and signs of endocarditis over a period of 2 weeks. Following blood culture, his doctor also becomes concerned about possible colon cancer. Which of the following is the most likely cause?

- a) *Streptococcus pyogenes*
- b) *Streptococcus agalactiae*
- c) *Enterococcus faecalis*
- d) *Streptococcus bovis*
- e) *Streptococcus pneumoniae*
- f) *Streptococcus mutans* (Viridans Streptococci group)

4.5) An elderly woman presents with a cough producing rusty-colored sputum. She complains of sharp right-sided chest pains, chills, and fevers. Physical exam reveals increased fremitus, dullness to percussion, and bronchial breath sounds on the lower right side. CXR shows right lower lobe consolidation, and Gram stains of sputum show Grampositive diplococci. Physicians begin treatment with cephalosporins. Which of the following is the most likely cause?

- a) *Streptococcus pyogenes*
- b) *Streptococcus agalactiae*
- c) *Enterococcus faecalis*
- d) *Streptococcus bovis*
- e) *Streptococcus pneumoniae*
- f) *Streptococcus mutans* (Viridans Streptococci group)

4.6) Soon after birth, an infant develops seizures, a marked irritability, poor feeding, and fever. The infant's birth records note a prolonged labor with premature rupture of membranes. A lumbar puncture was done and the infant was started on antibiotics. Which of the following is the most likely cause?

- a) *Streptococcus pyogenes*
- b) *Streptococcus agalactiae*
- c) *Enterococcus faecalis*
- d) *Streptococcus bovis*
- e) *Streptococcus pneumoniae*

- f) *Streptococcus mutans* (Viridans Streptococci group)

4.7) Which of the following is the most common cause of pneumonia in adults (40-65 years), the most common causes of pneumonia in the elderly (> 65 years), and the most common cause of meningitis in the elderly (> 60 years)?

- a) *Streptococcus pyogenes*
- b) *Streptococcus agalactiae*
- c) *Enterococcus faecalis*
- d) *Streptococcus bovis*
- e) *Streptococcus pneumoniae*
- f) *Streptococcus mutans* (Viridans Streptococci group)

4.8) Which of the following is the most common cause of neonatal meningitis?

- a) *Streptococcus pyogenes*
- b) *Streptococcus agalactiae*
- c) *Enterococcus faecalis*
- d) *Streptococcus bovis*
- e) *Streptococcus pneumoniae*
- f) *Streptococcus mutans* (Viridans Streptococci group)

4.9) Which of the following is associated with glomerulonephritis and rheumatic fever (Jones Criteria for Diagnosis)?

- a) *Streptococcus pyogenes*
- b) *Streptococcus agalactiae*
- c) *Enterococcus faecalis*
- d) *Streptococcus bovis*
- e) *Streptococcus pneumoniae*
- f) *Streptococcus mutans* (Viridans Streptococci group)

4.10) Of the following five most common pediatric diseases with a rash, which one is associated with *Streptococcus pyogenes*?

- a) Measles (fever of three days with cough, coryza, or conjunctivitis)
- b) Rubella (Forchheimer sign, fever, swollen glands)
- c) Scarlet fever ("strawberry tongue", "sandpaper rash")
- d) Roseola (high fever, "rose red rash")
- e) Erythema infectiosum (bright red cheeks)

5) M Protein is a virulence factor that binds to H factor, causing C3B to be degraded, and protecting the organism from being phagocytized. Which of the following is associated with M Protein?

- a) *Streptococcus pyogenes*
- b) *Streptococcus agalactiae*
- c) *Enterococcus faecalis*
- d) *Streptococcus bovis*
- e) *Streptococcus pneumoniae*
- f) *Streptococcus mutans* (Viridans Streptococci group)

6) Streptococcal pyrogenic exotoxins (Spes) act as superantigens and are associated with which of the following?

- a) Dental caries and brain abscesses
- b) Subacute Bacterial Endocarditis (SBE)

- c) Toxic Shock Syndrome (TSS) and Scarlet fever
- d) Pharyngitis and impetigo
- e) Glomerulonephritis and rheumatic fever

7) The measurement of antibodies against streptolysin O (the ASO test) is useful for confirming which of the following streptococcal infection symptoms, 3 to 4 weeks or more after the initial exposure to the organism?

- a) Dental caries and brain abscesses
- b) Subacute Bacterial Endocarditis (SBE)
- c) Toxic Shock Syndrome (TSS) and Scarlet fever
- d) Pharyngitis and impetigo
- e) Glomerulonephritis and rheumatic fever

Match the following biological effects with the virulence factor:

8.1) Reduces viscosity of abscess material; organism spreads easier

- b) DNase

8.2) Reduces blood clots; organism spreads easier

- a) Streptokinase

8.3) Disrupts the recruiting and activating of phagocytic cells

- c) C5a peptidase

9) What group of streptococci are suppressed by antibiotic-like bacteriocins?

- a) A
- b) B
- c) C
- d) D
- e) Nongroupable (no antigen)

10.1) Which of the following is alpha-hemolytic, Bacitracin resistant, Optochin resistant, and bile esculin negative?

- a) S. pyogenes
- b) S. agalactiae
- c) S. pneumoniae
- d) Enterococcus

10.2) Which of the following is beta-hemolytic, Bacitracin sensitive, Optochin resistant, and bile soluble?

- a) S. pyogenes
- b) S. agalactiae
- c) S. pneumoniae
- d) Enterococcus

10.3) Which of the following is alpha-hemolytic, Bacitracin resistant, Optochin sensitive, and bile esculin negative?

- a) S. pyogenes
- b) S. agalactiae
- c) S. pneumoniae
- d) Enterococcus

10.4) Which of the following is beta-hemolytic, Bacitracin resistant, Optichin resistant, positive for Hippurate hydrolysis, and positive for the CAMP reaction?

- a) S. pyogenes
- b) S. agalactiae
- c) S. pneumoniae
- d) Enterococcus

11) Which of the following groups of people is the mostly likely to acquire a Streptococcus agalactiae infection?

- a) Elderly men
- b) Elderly women
- c) Teenage boys
- d) Teenage girls
- e) Neonates

12) Patient at risk for Subacute Bacterial Endocarditis (SBE) from Viridans Streptococci should be given penicillin G prior to what type of medical procedure?

- a) Pacemaker implant
- b) Renal stenting
- c) Dental procedures
- d) Joint surgery
- e) Skin abscess lancing

Match the following biological effects with their virulence factor:

13.1) Prevents ciliated epithelial cell bacterial removal

- c) Secretory IgA protease (sIgA)

13.2) Activates classic complement pathway

- b) Pneumolysin

13.3) Antiphagocytic

- a) Capsule

14) The C-reactive protein (CRP) test is used to test for which of the following?

- a) Decreased white blood cell count
- b) Urinary tract infection
- c) Sepsis
- d) Inflammation
- e) Impetigo

24 – Enterococcus

1.1) Which of the following is NOT a common disease caused by Enterococcus sp.?

- a) Bacteremia
- b) Endocarditis
- c) Breast abscess
- d) Urinary tract infection
- e) Wound infection

1.2) Which of the following is NOT a common disease caused by Abiotrophia sp.?

- a) Eye infection

- b) Oral infection
- c) Endocarditis
- d) Urinary tract infection
- e) Bacteremia

2) Vancomycin-resistant enterococci (VRE) are troublesome because the resistance is mediated by which of the following, allowing it to be transferred to other bacteria?

- a) Flagellum
- b) Ribosomes
- c) Cytoplasm
- d) Plasmid
- e) Capsule

3) Abiotrophia and Granulicatella, formerly called nutritionally deficient streptococci, are problematic because they will initially grow in blood culture broths or in mixed cultures but do not grow when subcultured onto sheep blood agar media, unless the media is supplemented with pyridoxal, a natural form of what vitamin?

- a) Vitamin A
- b) Vitamin B6
- c) Vitamin B12
- d) Vitamin D
- e) Vitamin K

25 – Bacillus

1) Bacillus are ____ spore formers and Clostridium are ____ spore formers.

- a) Aerobic; Anerobic
- b) Aerobic and facultative anaerobic; Anerobic
- c) Aerobic; Facultative anaerobic and anerobic
- d) Anerobic; Aerobic
- e) Anerobic; Aerobic and facultative anaerobic

2.1) Which of the following is/are the toxic form(s) of proteins on the large plasmid (virulence factor) of B. anthracis, which lead to the damage of a large range of tissues?

- a) Protective antigen (PA) - binds cell membranes
- b) Edema factor (EF) - adenylate cyclase activity
- c) Lethal factor (LF) - causes cell death
- d) PA + EF + LF
- e) PA + EF and PA + LF

2.2) Which of the following is a virulence factor of B. anthracis that inhibits phagocytosis of replicating cells?

- a) M Protein
- b) O polysaccharide
- c) Chemotaxis prevention
- d) Capsule
- e) K antigen

3) In non-industrial countries, what is the most likely place to find B. anthracis?

- a) Skin/fur of carnivores
- b) Skin/fur of herbivores
- c) Fresh water lakes
- d) Desert sand
- e) Rainforest trees

4) Which of the following is NOT a characteristic of B. anthracis that makes it a good choice for mass (continental) biological warfare?

- a) Can form resistant spores that can remain viable for very long periods of time
- b) Is very deadly and cannot always be easily recognized and treated in time
- c) It is non-communicable and won't spread beyond a specific target
- d) Spores are easy to isolate worldwide
- e) Spores can easily be prepared from liquid cultures

Match the following resulting biological effect with their form of anthrax:

5.1) Dysentery

- b) Ingestion

5.2) 100% mortality

- c) Inhalation

5.3) Malignant pustules

- a) Cutaneous abrasion

6) A young man enters the Emergency Room dehydrated, afebrile, and complaining of nausea and vomiting. Since he began vomiting one hour ago, he has been “hugging the toilet” nearly every ten minutes. He remembers eating a dish with fried rice at an Asian restaurant several hours ago. Which of the following is most likely the cause?

- a) C. tetani
- b) C. botulinum
- c) C. difficile
- d) B. anthracis
- e) B. cereus

26 – Listeria

1) Which of the following is NOT a useful feature in identifying Listeria?

- a) Facultative anaerobe coccobacilli often arranged in pairs
- b) Only Gram-positive bacteria with an endotoxin
- c) Motile at room temperature
- d) -hemolytic (non-hemolytic)
- e) Capable of growth in high-salt concentrations

2.1) A mother brings her 2-month-old infant to the hospital because he exhibits fever, convulsions, irritability, and poor eating. The pediatrician-in-training notes a widespread rash and a stiff neck on physical exam. She orders a spinal tap, which

reveals low glucose, increased PMNs, increased proteins, and Gram-positive rods with “tumbling” motility in cultures. Upon further questioning, the pediatrician discovers that the mother does not breast feed and feeds her baby fresh cow milk. Which of the following is the most likely cause?

- a) *C. diphtheriae*
- b) *S. pneumoniae*
- c) *S. aureus*
- d) *L. monocytogenes*
- e) *S. pyogenes*

2.2) Which of the following groups of people would be the least susceptible to *Listeria*?

- a) AIDS patients
- b) Neonates
- c) Elderly
- d) Pregnant women
- e) Immunocompromised patients

3.1) Which of the following is caused by early-onset (acquired transplacentally in utero) *Listeria monocytogenes*?

- a) Disseminated abscesses and granulomas in multiple organs
- b) Meningitis or meningoencephalitis with septicemia
- c) Painful, pruritic inflammatory skin lesion
- d) Endocarditis
- e) Osteomyelitis

3.2) Which of the following is caused by late-onset (acquired shortly after birth) *Listeria monocytogenes*?

- a) Disseminated abscesses and granulomas in multiple organs
- b) Meningitis or meningoencephalitis with septicemia
- c) Painful, pruritic inflammatory skin lesion
- d) Endocarditis
- e) Osteomyelitis

28 – *Nocardia*

1) Which of the following describes clinical diagnosis for *Nocardiosis*?

- a) Weakly Gram-positive, beaded filaments, not acid fast, obligate anaerobe
- b) Weakly Gram-negative, beaded filaments, weakly acid fast, obligate anaerobe
- c) Weakly Gram-positive, beaded filaments, weakly acid fast, obligate anaerobe
- d) Weakly Gram-negative, beaded filaments, weakly acid fast, obligate aerobe
- e) Weakly Gram-positive, beaded filaments, weakly acid fast, obligate aerobe

2) Which of the following groups of people would be the least susceptible to *Nocardiosis*?

- a) AIDS patients
- b) HIV infected patients
- c) Patients implanted with cardiac devices (e.g. Left Ventricular Assist Device)

- d) Bone marrow transplant patients
- e) Solid organ transplant patients

29 – *Mycobacteria*

1) Which of the following describes bacteria that are acid-fast?

- a) Are decolorized with acidic solutions
- b) Are decolorized with basic solutions
- c) Cannot be decolorized with acidic solutions
- d) Cannot be decolorized with basic solutions

2.1) Which of the following would have diffuse infiltration of the skin by multiple nodules of varying size, each with many bacteria? (weak immune response)

- a) Lepromatous leprosy
- b) Tuberculoid leprosy
- c) Tuberculosis
- d) Herpes simplex virus type 2
- e) MRSA skin infection

2.2) Which of the following would have lesions characterized by anesthetic macules with hypopigmentation? (strong immune response)

- a) Lepromatous leprosy
- b) Tuberculoid leprosy
- c) Tuberculosis
- d) Herpes simplex virus type 2
- e) MRSA skin infection

3) Which of the following is the natural habitat for mycobacteria? (best answer)

- a) Food
- b) Plants
- c) Infected animals
- d) Water
- e) Soil

4.1) Which of the following is spread by close person-to-person contact through the inhalation of infectious aerosols and infects a third of the world's population according to the World Health Organization (WHO) in 2002?

- a) *M. leprae*
- b) *M. avium-intracellulare*
- c) *M. tuberculosis*

4.2) Which of the following is spread by person-to-person contact, has fallen in prevalence by almost 90% since 1985, and is endemic in armadillos?

- a) *M. leprae*
- b) *M. avium-intracellulare*
- c) *M. tuberculosis*

4.3) Which of the following primarily affects immunocompromised patients, has not shown person-to-person transmission, is acquired through ingestion of contaminated water or food, is seen

most commonly in countries where tuberculosis is less common?

- a) *M. leprae*
- b) *M. avium-intracellulare*
- c) *M. tuberculosis*

Match the following clinical diagnosis method with the Mycobacteria:

5.1) Microscopy/culture are sensitive and specific, AIDS status

- b) *M. avium-intracellulare*

5.2) Skin/nerve biopsy, Acid-fast stain, skin test

- a) *M. leprae*

5.3) Acid-fast stain, PPD (Mantoux), Ghon complex on CXR

- c) *M. tuberculosis*

30 – Neisseriae

1.1) Which of the following is NOT true regarding Neisseria meningitidis?

- a) Gram-negative
- b) Diplococci
- c) Does not oxidize maltose
- d) Oxidizes glucose
- e) Second common cause of community-acquired meningitis in adults

1.2) Which of the following is found as a disease mostly in African Americans, aged 15- 24, with multiple sexual partners, and who live in the southeastern United States?

- a) *Neisseria gonorrhea*
- b) *Neisseria meningitidis*
- c) *Staphylococcus aureus*
- d) *Staphylococcus saprophyticus*
- e) *Staphylococcus pyogenes*

2.1) Which of the following sugar assimilation tests (production of acid by oxidation) would yield different results between Neisseria gonorrhea and Neisseria meningitidis?

- a) Glucose
- b) Dextrose
- c) Fructose
- d) Maltose
- e) Galactose

2.2) Neisseria are oxidase positive bacteria. What media is used for isolation of Neisseria?

- a) Chocolate (CHOC)
- b) Thayer-Martin (TM)
- c) Blood agar plate (BAP)
- d) Bile Esculin agar (BEA)
- e) MacConkey agar (MAC)

2.3) Chocolate agar (CHOC) is used to create which of the following agars?

- a) Xylose-Lysine-Deoxycholate agar (XLD)
- b) MacConkey agar (MAC)
- c) Thayer-Martin (TM)
- d) Bile Esculin agar (BEA)
- e) Blood agar plate (BAP)

2.4) Neisseria grows at 35-37 degrees Celsius in a humid atmosphere, with Neisseria gonorrhea requiring what additional supplement that Neisseria meningitidis does not need?

- a) Fructose
- b) Glucose
- c) Oxygen
- d) Carbon monoxide
- e) Carbon dioxide

3.1) Pili in Neisseria allow for attachment of the bacteria to what kind of cells?

- a) Non-ciliated epithelial cells
- b) Ciliated epithelial cells
- c) Cuboidal cells
- d) Transitional cells
- e) Simple squamous cells

3.2) Pili in Neisseria allow for motility, transfer of genetic material, and provide resistance to killing of the bacteria by which of the following?

- a) Basophils
- b) Monocytes
- c) Lymphocytes
- d) Neutrophils
- e) Eosinophils

3.3) Which of the following cells together form a class known as polymorphonuclear cells (PMNs)?

- a) Basophils and Neutrophils
- b) Neutrophils and Eosinophils
- c) Basophils, Neutrophils, and Eosinophils
- d) Monocytes and Lymphocytes
- e) Eosinophils and Basophils

4) Opa proteins (opacity proteins) are a family of membrane proteins that mediate intimate binding to epithelial and phagocytic cells and are important for cell-to-cell signaling. Neisseria gonorrhea expressing the Opa proteins appear ____ when grown in culture and Neisseria meningitidis expressing the Opa proteins appear ____.

- a) Transparent; Transparent
- b) Opaque; Opaque
- c) Transparent; Opaque
- d) Opaque; Transparent

5) Which of the following virulence factors for Neisseria gonorrhoeae is the reason penicillin is no longer used as the drug of choice for gonorrhea?

- a) Pilin (protein)
- b) β -lactamase
- c) Opa protein
- d) Por protein

e) IgA1 protease

6) Phase variation along with antigenic variation account for the ineffectiveness in treating *Neisseria* infections. Which of the following virulence factors has a variable region at the carboxyl terminus (immunodominant portion of the molecule) leading to antigenic variation?

- a) Pilin (protein)
- b) -lactamase
- c) Opa protein
- d) Por protein
- e) IgA1 protease

7) What is the importance of the capsule in the pathogenesis of *Neisseria meningitidis* infections?

- a) Mediates initial attachment to nonciliated human cells
- b) Mediates firm attachment to eukaryotic cells
- c) Mediate acquisition of iron for bacterial metabolism
- d) Destroys immunoglobulin A1
- e) Prevents phagocytosis by the host

8) The action of which of the following found on the outer membrane is the most responsible for disseminated intravascular coagulation (DIC), also called consumptive coagulopathy, seen in meningococcal infections?

- a) LOS endotoxin
- b) IgA1 protease
- c) Hemoglobin-binding proteins
- d) Por protein
- e) Pillin

31 – Enterobacteriaceae

1) Which of the following describes enteric bacteria?

- a) Gram-positive cocci
- b) Gram-negative cocci
- c) Gram-positive rods
- d) Gram-negative rods
- e) Gram-positive spirals

2.1) What is the most prevalent Enterobacteriaceae found in central nervous system infections?

- a) Escherichia
- b) Klebsiella
- c) Salmonella
- d) Yersinia
- e) Morganella

2.2) What is the most prevalent Enterobacteriaceae found in lower respiratory tract infections?

- a) Escherichia
- b) Klebsiella
- c) Salmonella
- d) Yersinia
- e) Morganella

2.3) What is the most prevalent Enterobacteriaceae found in bloodstream infections?

- a) Escherichia
- b) Klebsiella
- c) Salmonella
- d) Yersinia
- e) Morganella

2.4) What is the most prevalent Enterobacteriaceae found in gastrointestinal tract infections?

- a) Escherichia
- b) Klebsiella
- c) Salmonella
- d) Yersinia
- e) Morganella

2.5) What is the most prevalent Enterobacteriaceae found in urinary tract infections?

- a) Escherichia
- b) Klebsiella
- c) Salmonella
- d) Yersinia
- e) Morganella

3.1) Which of the following is oxidase positive?

- a) *E. coli*
- b) *P. vulgaris*
- c) *K. pneumoniae*
- d) Salmonella
- e) Shigella
- f) *P. aeruginosa*

3.2) Which of the following ferment lactose?

- a) *P. vulgaris*, Salmonella, and Shigella
- b) *E. coli* and *K. pneumoniae*
- c) *P. vulgaris* and Salmonella
- d) Shigella, *E. coli*, and *P. vulgaris*
- e) *P. aeruginosa* only

3.3) Which of the following is identified in the laboratory based on production of indole?

- a) *E. coli*
- b) *P. vulgaris*
- c) *K. pneumoniae*
- d) Salmonella
- e) Shigella

3.4) Which of the following is urease positive, produces hydrogen sulfide, and is motile?

- a) *E. coli*
- b) *P. vulgaris*
- c) *K. pneumoniae*
- d) Salmonella
- e) Shigella

3.5) Which of the following is urease negative, produces hydrogen sulfide, and is motile?

- a) *E. coli*
- b) *P. vulgaris*
- c) *K. pneumoniae*

- d) Salmonella
- e) Shigella

3.6) Which of the following does not produce hydrogen sulfide and is motile?

- a) E. coli
- b) P. vulgaris
- c) K. pneumoniae
- d) Salmonella
- e) Shigella

4) Which of the following would NOT be caused by endotoxin?

- a) Activation of complement
- b) Release of cytokines
- c) Phagocytotic inhibition
- d) Thrombocytopenia
- e) Fever and leukocytosis

5.1) Which of the following is used by bacteria such as Yersinia, Salmonella, Shigella, enteropathogenic Escherichia, Pseudomonas, and Chlamydia to deliver their virulence factors into targeted eukaryotic cells, acting like a molecular syringe?

- a) Endotoxin
- b) Capsule
- c) Type III secretion system
- d) Antigenic phase variation
- e) Sequestering of growth factors

5.2) In the process of sequestering of growth factors by bacteria, some bacteria produce chelating compounds (e.g., enterobactin, aerobactin) that bind which of the following?

- a) Magnesium
- b) Calcium
- c) Phosphate
- d) Sodium
- e) Iron

6.1) Which of the following is an important cause of hemorrhagic colitis (HC) and hemolytic uremic syndrome (HUS) in the United States?

- a) Enteropathogenic E. coli (EPEC)
- b) Enterotoxigenic E. coli (ETEC)
- c) Enterohemorrhagic E. coli (EHEC)
- d) Enteroinvasive E. coli (EIEC)
- e) Enteraggregative E. coli (EAEC)

6.2) Proper cooking of beef products can help reduce the risk of what kind of infections?

- a) Enteropathogenic E. coli (EPEC)
- b) Enterotoxigenic E. coli (ETEC)
- c) Enterohemorrhagic E. coli (EHEC)
- d) Enteroinvasive E. coli (EIEC)
- e) Enteraggregative E. coli (EAEC)

6.3) Which of the following is most associated with infant diarrhea in underdeveloped countries;

watery diarrhea and vomiting, and non-bloody stools?

- a) Enteropathogenic E. coli (EPEC)
- b) Enterotoxigenic E. coli (ETEC)
- c) Enterohemorrhagic E. coli (EHEC)
- d) Enteroinvasive E. coli (EIEC)
- e) Enteraggregative E. coli (EAEC)

6.4) Which of the following is most associated with Traveler diarrhea; infant diarrhea in developing countries; watery diarrhea, vomiting, cramps, nausea, and low-grade fever?

- a) Enteropathogenic E. coli (EPEC)
- b) Enterotoxigenic E. coli (ETEC)
- c) Enterohemorrhagic E. coli (EHEC)
- d) Enteroinvasive E. coli (EIEC)
- e) Enteraggregative E. coli (EAEC)

6.5) Which of the following has pathogenesis mediated by cytotoxic Shiga toxins as opposed to plasmid-mediated?

- a) Enteropathogenic E. coli (EPEC)
- b) Enterotoxigenic E. coli (ETEC)
- c) Enterohemorrhagic E. coli (EHEC)
- d) Enteroinvasive E. coli (EIEC)
- e) Enteraggregative E. coli (EAEC)

6.6) Which of the following is associated with dysentery with leukocytes in stool, similar to shigellosis?

- a) Enteropathogenic E. coli (EPEC)
- b) Enterotoxigenic E. coli (ETEC)
- c) Enterohemorrhagic E. coli (EHEC)
- d) Enteroinvasive E. coli (EIEC)
- e) Enteraggregative E. coli (EAEC)

7.1) Which of the following toxins disrupts protein synthesis causing damage to the intestinal epithelium, and in a small subset of patients causes damage to the glomerular endothelial cells, resulting in renal failure?

- a) Vibrio cholerae
- b) EHEC
- c) Shigella dysenteriae
- d) ETEC

7.2) Which of the following expresses a Shiga toxin which disrupts protein synthesis, leading to destruction of intestinal villus and decreased absorption with an increase in fluid secretion?

- a) Vibrio cholerae
- b) EHEC
- c) Shigella dysenteriae
- d) ETEC

7.3) Which of the following produces heat-labile (LT-I and LT-II) and heat-stable (STa and STb) enterotoxins that stimulate hypersecretion of fluids and electrolytes?

- a) Vibrio cholerae

- b) EHEC
- c) *Shigella dysenteriae*
- d) ETEC

7.4) Which of the following interacts with G proteins that control adenylate cyclase, leading to the catabolic conversion of adenosine triphosphate (ATP) to cyclic adenosine monophosphate (cAMP), resulting in a hypersecretion of water and electrolytes?

- a) *Vibrio cholerae*
- b) EHEC
- c) *Shigella dysenteriae*
- d) ETEC

8) What virulence factor of *E. coli* is associated with adhesion in the urinary and gastrointestinal tracts and also binds to a blood group antigen?

- a) Colonizing factor antigens
- b) Aggregative adherence fimbriae
- c) *P. pili*
- d) Intimin
- e) Ipa protein

Use the following key (a-f) to match the bacteria to the illness it causes:

- a) *Salmonella typhi*
- b) *Salmonella enteritidis*
- c) *Shigella dysenteriae*
- d) *Yersinia enterocolitica*
- e) *Yersinia pestis*

9.1) A photographer for National Geographic returning from Thailand develops a fever and abdominal cramps on the plane. By the time the plane lands, he suffers from bloody diarrhea. His fever peaks at 40°C. The doctor decides to do an endoscopy exam and makes a diagnosis based on the hemorrhagic mucosa and ulcerations observed in the distal colon. Which of the options is the most likely cause?

- c) *Shigella dysenteriae*

9.2) A traveler from New Mexico presents to the ER with fever, dark black skin patches, and enlarged, painful lymph nodes in his groin. He maintains an awkward pose with extremities extended, which he says lessens his pain. Doctors begin treatment immediately and inquire about possible flea bites. They then call local authorities in New Mexico and ask about similar recent incidents. Which of the options is the most likely cause?

- e) *Yersinia pestis*

9.3) A woman who recently returned from a trip to South America complains of a persistent high fever, malaise, and constipation that has lasted for over a week. She recalls that the fever began slowly and climbed its way up to the current 41°C. A physical

exam reveals that she has an enlarged spleen and a generally tender abdomen with red macules. The physician asks for a stool sample to complete the diagnosis. Which of the options is the most likely cause?

- a) *Salmonella typhi*

9.4) A man and his two sons just returned from a vacation on their relative's farm. All three arrived complaining of bloody diarrhea. The youngest son becomes well spontaneously. The older son complains of right flank pain, while the father starts to notice tenderness in his joints. One surgeon, worried about appendicitis in the older son, performs the initial incision and discovers a normal appendix but an inflamed colon. After also observing swollen mesenteric lymph nodes during surgery, he makes a diagnosis explaining the symptoms in all 3 patients. Which of the options is the most likely cause?

- d) *Yersinia enterocolitica*

9.5) A veterinary school student complains to the doctor of diarrhea and abdominal tenderness. He is certain these symptoms followed nausea and vomiting the day before. He admits that he may have caused himself this misery by excessively playing with his turtle.

- b) *Salmonella enteritidis*

9.6) Which of the following is NOT a route of transmission for *Shigella dysenteriae*?

- a) Fingers
- b) Flies
- c) Farms
- d) Food
- e) Feces

9.7) Which of the following can be transmitted in raw milk along with the fecal-oral route?

- a) *Salmonella typhi*
- b) *Salmonella enteritidis*
- c) *Shigella dysenteriae*
- d) *Yersinia enterocolitica*
- e) *Yersinia pestis*

9.8) Which of the following is commonly transmitted by uncooked chicken?

- a) *Salmonella typhi*
- b) *Salmonella enteritidis*
- c) *Shigella dysenteriae*
- d) *Yersinia enterocolitica*
- e) *Yersinia pestis*

10) After ingestion and passage through the stomach, salmonellae are able to invade and replicate in the M (microfold) cells that are located in Peyer patches of the terminal portion of the small intestine. Which of the following mediates the initial invasion into the intestinal mucosa?

- a) cAMP inducing toxin
- b) Capsule
- c) Spore
- d) Teichoic acid
- e) Type III secretion system

Match the following descriptions with the term:

- a) Gastroenteritis b) Septicemia c) Enteric fever

11.1) Gradually increasing fever 10-14 days from ingestion with nonspecific complaints such as headache, myalgias, malaise, and anorexia.

- c) Enteric fever

11.2) Nausea, vomiting, and non-bloody diarrhea 6-48 hours after consumption.

- a) Gastroenteritis

11.3) From Salmonella and risk is higher in pediatric, geriatric, and AIDS patients

- b) Septicemia

12) Which of the following is NOT true regarding the epidemiology of bacillary dysentery (Shigella)?

- a) Primarily a pediatric disease
- b) Endemic in adult homosexual males
- c) Epidemic outbreaks can occur in daycare centers and nurseries
- d) Primary transmission is by people with contaminated hands
- e) Spreads rapidly even in communities where sanitary standards are high

13.1) Which of the following is the natural reservoir for urban plague (Y. pestis)?

- a) Cows
- b) Rabbits
- c) Turtles
- d) Rats
- e) Mosquitoes

13.2) Which of the following is NOT a natural reservoir for sylvatic plague (Y. pestis)?

- a) Squirrels
- b) Rabbits
- c) Livestock
- d) Rats
- e) Domestic cats

14) Bubonic plagues (Y. pestis) is characterized by ____ and pneumonic plague (Y. pestis) is characterized by ____.

- a) A 7-day incubation period; A 3-day incubation period
- b) A > 90% mortality rate; A >75% mortality rate
- c) Pulmonary disease; A painful bubo (inflammation of the lymph nodes)
- d) Aerosol spreading from person-to-person; Flea bites
- e) Septicemia; Cutaneous hemorrhagic necrosis

32 – Vibrios

1) Aside from the presence of polar flagella, which of the following laboratory tests can differentiate Vibrionaceae from Enterobacteriaceae?

- a) Oxidase reaction
- b) Urease reaction
- c) Glucose/Dextrose fermentation
- d) Sucrose fermentation
- e) Lactose reaction

2) Cholera toxin causes an increase in which of the following, leading to severe “ricewater” diarrhea?

- a) [cGMP]
- b) [cAMP]
- c) [GTP]
- d) [ADP]
- e) [NADH]

3) V. cholerae O1 and 0139 produce cholera toxin and are associated with epidemics of cholera. The O1 serogroup is divided into ____ (Inaba, Ogawa, and Hikojima) and ____ (classical and el tor).

- a) Phenotypes; Serotypes
- b) Serotypes; Phenotypes
- c) Biotypes; Serotypes
- d) Serotypes; Biotypes
- e) Phenotypes; Biotypes

4) Which of the following is the natural environment where V. cholerae grows?

- a) Fresh water lakes and streams
- b) Saltwater marine and estuarine
- c) Soil, especially in underdeveloped countries
- d) Naturally flora in human GI tract
- e) Livestock skin and fur

Match the following clinical descriptions with the bacteria that causes them:

- a) V. parahaemolyticus b) V. vulnificus c) V. cholerae

5.1) Begins with an abrupt onset of watery diarrhea and vomiting and can progress to severe dehydration, metabolic acidosis and hypokalemia, and hypovolemic shock.

- c) V. cholerae

5.2) Self-limited gastroenteritis (explosive onset of watery diarrhea) with low-grade fever or wound infection associated with exposure to contaminated water.

- a) V. parahaemolyticus

5.3) Severe, potentially fatal wound infections characterized by erythema, pain, bullae formation, tissue necrosis, and septicemia.

- b) V. vulnificus

6) In epidemiology, this term refers to an infection in a population where that infection is maintained in the population without the need for external inputs (e.g. V. cholerae and chickenpox). Each person who becomes infected with the disease must pass it on to exactly one other person, on average.

- a) Outbreak
- b) Epidemic
- c) Pandemic
- d) Syndemic
- e) Endemic

33 – Campylobacter and Helicobacter

1.1) Which of the following can help differentiate Campylobacter jejuni from Helicobacter pylori in the laboratory?

- a) Gram reaction
- b) Oxidase reaction
- c) Catalase reaction
- d) Urease reaction
- e) Nitrate reduction

1.2) Which of the following is NOT true regarding Campylobacter?

- a) Gram-negative rods
- b) Low DNA guanosine plus cytosine base ration
- c) Inability to ferment or oxidize carbohydrates
- d) Microaerophilic growth requirements
- e) Inability to grown on Campy agar

2) Which of the following is NOT true regarding the epidemiology of C. jejuni?

- a) It is a zoonotic infection (cattle, dogs, domestic animals, etc.)
- b) Improperly prepared poultry is a common source of human infections
- c) Person-to-person spread is very common
- d) The dose required to establish infection is high
- e) Enteric infections most commonly seen in warm months

3.1) Which of the following is NOT one of the most common causes of diarrhea in the world?

- a) ETEC
- b) C. jejuni
- c) Rotovirus
- d) H. pylori

3.2) A man with fever, muscle pains, and headache feels no need to go to the doctor until about 1 day later, when he develops bloody diarrhea and abdominal pain as well. The abdominal pain is so severe that his physician fears appendicitis until learning that the man may have had unpasteurized milk in the past week. A definitive diagnosis is made by growth on stool cultures at 42°C, microaerophilic conditions. Which of the following is the most likely cause?

- a) ETEC

- b) C. jejuni
- c) Rotovirus
- d) H. pylori
- e) S. aureus

3.3) What disease may be confused with C. jejuni because Campylobacter is difficult to detect?

- a) Crohn disease
- b) Kawasaki disease
- c) Hodgkin disease
- d) Huntington disease
- e) Alzheimer disease

4.1) Multiple factors contribute to the gastric inflammation, alteration of gastric acid production, and tissue destruction that are characteristic of H. pylori disease. The virulence factor Heat shock protein (HspB) enhances the expression of which of the following?

- a) Mucinase
- b) Phospholipase
- c) Catalase
- d) Superoxide dismutase
- e) Urease

4.2) Which of the following H. pylori virulence factors induces hypochlorhydria during acute infection by blocking secretion from parietal cells?

- a) Urease
- b) Heat shock protein
- c) Acid-inhibitory protein
- d) Flagella
- e) Adhesins

4.3) Which of the following H. pylori virulence factors disrupt gastric mucus?

- a) Urease
- b) Mucinase
- c) Phospholipase
- d) Mucinase and phospholipase
- e) Mucinase and urease

4.4) Which of the following H. pylori virulence factors prevent phagocytosis?

- a) Superoxide dismutase
- b) Phospholipase
- c) Catalase
- d) Phospholipase and catalase
- e) Catalase and superoxide dismutase

4.5) Which of the following H. pylori virulence factors neutralizes gastric acids and stimulates production of inflammatory cytokines?

- a) Acid-inhibitory protein
- b) Urease
- c) Adhesins
- d) Mucinase
- e) Catalase

5) Which of the following is the etiologic agent in virtually all cases of type B gastritis, accounting for up to 80% of gastric ulcers and more than 90% of duodenal ulcers?

- a) ETEC
- b) C. jejuni
- c) Rotavirus
- d) H. pylori
- e) S. aureus

6.1) Which of the following laboratory test for H. pylori is the diagnostic test of choice and measures antibody titers to document exposure to the bacteria?

- a) Microscopy
- b) Urease test
- c) Antigen detection
- d) Culture
- e) Serology

6.2) Which of the following laboratory test for H. pylori requires a biopsy and identifies the bacteria if the result is positive?

- a) Microscopy
- b) Urease test
- c) Antigen detection
- d) Culture
- e) Serology

7) The greatest success in curing gastritis or peptic ulcer disease has been accomplished with the combination of antibiotics and which of the following?

- a) Proton pump inhibitor (PPI)
- b) Cyclooxygenase (COX) blocker
- c) Angiotensin converting enzyme (ACE) inhibitor
- d) Selective serotonin reuptake inhibitor (SSRI)
- e) Protease inhibitor

34 – Pseudomonas

1) Which of the following locations is the least likely for non-fermenters to exist?

- a) High oxygen
- b) Low oxygen
- c) Plants
- d) Soil
- e) High moisture

2) Pseudomonas are ubiquitous organisms found in soil, decaying organic matter, vegetation, and water. Which of the following locations within the hospital environment would Pseudomonas likely NOT be found?

- a) Disinfectant solutions
- b) Cut flowers
- c) Oxygen tanks
- d) Floor mops
- e) Respiratory therapy equipment

3) Which of the following is a health care associated infection that is typically more virulent and drug resistant?

- a) Opportunistic
- b) Nosocomial
- c) Strict
- d) Endogenous
- e) Exogenous

4.1) Which of the following P. aeruginosa virulence factors impairs ciliary function, stimulates inflammatory response, and mediates tissue damage through toxic oxygen radicals?

- a) Capsule
- b) Pili
- c) Lipopolysaccharide
- d) Pyocyanin
- e) Cytotoxin (leukocidin)

4.2) Which of the following P. aeruginosa virulence factors is toxic to eukaryotic membranes, which disrupts leukocyte function and produces pulmonary microvascular injury?

- a) Endotoxin A
- b) Endotoxin S
- c) Cytotoxin
- d) Elastase
- e) Pyocyanin

4.3) P. aeruginosa is inherently resistant to many antibiotics and can mutate (porin proteins) to even more resistant strains during therapy.

- a) True
- b) False

4.4) The P. aeruginosa virulence factor ____ is a heat-labile hemolysin and the virulence factor ____ is a heat-stable hemolysin.

- a) Phospholipase C; Rhamnolipid
- b) Rhamnolipid; Cytotoxin
- c) Cytotoxin; Pyocyanin
- d) Pyocyanin; Elastase
- e) Elastase; Alkaline protease

5.1) In beta hemolysis, a green pigmentation grows in red blood agar. This is due to the ____ pyocyanin and the ____ fluorescein.

- a) Green; Green
- b) Green; Red
- c) Red; Green
- d) Blue; Yellow
- e) Yellow; Blue

5.2) Which of the following is NOT a featured used to identify P. aeruginosa?

- a) Lactose non-fermenter
- b) Oxidase negative
- c) Glucose non-fermenter
- d) Sweet grape-like odor
- e) Beta hemolysis

5.3) Which of the following is NOT oxidase positive?

- a) *Vibrio*
- b) *Pseudomonas*
- c) *Campylobacter*
- d) *Helicobacter*
- e) Enterobacteriaceae

6) Which of the following treatment plans would be used for *P. aeruginosa* infection?

- a) Penicillin throughout treatment
- b) A single mix of active antibiotics throughout treatment
- c) Multiple mixes of active antibiotics changed throughout treatment
- d) A single protease inhibitor throughout treatment
- e) Multiple protease inhibitors changed throughout treatment

7) Which of the following patient populations is at high risk for *Burkholderia cepacia* infections of the respiratory tract?

- a) AIDS patients
- b) Catheterized patients
- c) Cystic fibrosis patients
- d) Elderly patients
- e) Neonates

8.1) *Stenotrophomonas maltophilia* is resistant to which of the following?

- a) -lactam antibiotics
- b) Aminoglycoside antibiotics
- c) Trimethoprim-sulfamethoxazole
- d) Chloramphenicol and ceftazidime
- e) -lactam and aminoglycoside

8.2) Which of the following patient populations is at high risk for opportunistic *Acinetobacter* infections?

- a) AIDS patients
- b) Catheterized patients
- c) Patients receiving penicillin
- d) Patients receiving broad-spectrum antibiotics
- e) Patients receiving aminoglycoside antibiotics

35 – *Haemophilus* and Related Bacteria

1) Which of the following best describes *Haemophilus*?

- a) Gram-positive cocci
- b) Gram-positive rods
- c) Gram-negative cocci
- d) Gram-negative rods
- e) Gram-negative spirals

2) What are the growth factor requirements for *Haemophilus* on chocolate agar?

- a) Hemin (Heme, X)
- b) Nicotinamide adenine dinucleotide (NAD, V)

c) Heme and NAD (X and V)

d) Cysteine

e) Cysteine and heme (X)

3) The “type B” in *Haemophilus influenzae* refers to which of the following, which identifies them by their surface antigens?

- a) Biotype
- b) Phenotype
- c) Serogroup
- d) Serotype
- e) Organism

4) Which of the following was NOT a result of the conjugated *Haemophilus influenzae* type B vaccine?

- a) Systemic disease in children younger than 5 years has been virtually eliminated in the United States
- b) Most of the *H. influenzae* type B infections now occur in children who had incomplete vaccination or poor response to the vaccine
- c) Outside of the United States, influenza type B remains the most significant pediatric pathogen in many countries of the world
- d) Elderly patients in the United States are unlikely to get influenza type B because they are vaccinated
- e) Ear and sinus infections caused by these organisms are primarily pediatric diseases

5) Which of the following is NOT true for *Pasteurella multocida*?

- a) Oxidase positive
- b) Catalase positive
- c) Gram-negative
- d) Coccobacilli
- e) Non-fermentive

6) How would a person typically acquire a *P. multocida* infection?

- a) Mosquitoes bite
- b) Cat bite
- c) Unpasteurized milk
- d) Person-to-person via aerosols
- e) Sexual contact

36 & 37 – *Bordetella*, *Francisella* and *Brucella*

1.1) Which of the following describes laboratory characteristics of *Bordetella pertussis*?

- a) Oxidase positive, urease positive, non-motile, growth on sheep blood agar, no growth on MacConkey agar
- b) Oxidase negative, urease negative, motile, no growth on sheep blood agar, no growth on MacConkey agar
- c) Oxidase positive, urease negative, non-motile, no growth on sheep blood agar, no growth on MacConkey agar
- d) Oxidase positive, urease negative, motile, growth on sheep blood agar, growth on MacConkey agar

e) Oxidase negative, urease negative, non-motile, growth on sheep blood agar, growth on MacConkey agar

1.2) Which of the following differentiates *B. pertussis* from both *B. parapertussis* and *B. bronchiseptica*?

- a) Oxidase and urease
- b) Urease and motility
- c) Motility and growth on sheep blood agar
- d) Urease and growth on sheep blood agar
- e) Oxidase and motility

Match the following biological effects with the virulence factors for *B. pertussis*:

- a) Filamentous hemagglutinin
- b) Pertussis toxin
- c) Adenylate cyclase/hemolysin toxin
- d) Tracheal cytotoxin

2.1) Increases intracellular level of adenylate cyclase and inhibits phagocytic killing and monocyte migration

- c) Adenylate cyclase/hemolysin toxin

2.2) A peptidoglycan fragment that kills ciliated respiratory cells and stimulates the release of interleukin-1 (fever)

- d) Tracheal cytotoxin

2.3) Binds to sulfated glycoproteins on ciliated cell membranes; binds to CR3 surface of polymorphonuclear leukocytes and initiates phagocytosis

- a) Filamentous hemagglutinin

2.4) S2 subunit binds to glycolipid on surface of ciliated respiratory cells; S3 subunit binds to ganglioside on surface of phagocytic cells

- b) Pertussis toxin

3.1) In the clinical presentation of *B. pertussis* disease, at what state does the characteristic whooping cough develop?

- a) Incubation (7-10 days)
- b) Catarrhal (1-2 weeks)
- c) Paroxysmal (2-4 weeks)
- d) Convalescent (3-4 weeks or longer)

3.2) In *B. pertussis* infection, where is the number of organisms the highest?

- a) CSF
- b) GI tract
- c) UG tract
- d) Respiratory tract
- e) Skin

3.3) An infant born in a rural area is brought to the ER with severe bouts of coughing throughout the day. During the visit, the baby appears cyanotic and suffers an attack of many coughs on a single

expiration followed by a deep inspiration. The cough produces copious greenish phlegm. Further history reveals that the infant has not been vaccinated. The physician fears that erythromycin therapy will not be helpful at this stage of the illness. Which of the following is the most likely cause?

- a) *S. pneumoniae*
- b) *P. aeruginosa*
- c) *B. pertussis*
- d) *F. tularensis*
- e) *L. pneumophila*

4) The ____ version of the pertussis vaccine is associated with unacceptable levels of complications. The ____ version of the vaccine contains inactivated bacteria and the ____ version of the vaccine contains the pertussis toxin and one (or more) bacterial components, which mediate immune response in the host.

- a) Whole cell; Whole cell; Acellular

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- b) Whole cell; Acellular; Whole cell
- c) Acellular; Whole cell; Acellular
- d) Acellular; Acellular; Whole cell

5) *Brucella* and *Francisella* are examples of what kind of disease, where they can be transmitted from animal to human?

- a) Nosocomial
- b) Water-borne
- c) Blood-borne
- d) Zoonosis
- e) Opportunistic

6) What is the primary virulence factor of the intracellular parasite *F. tularensis*?

- a) cAMP inducing toxin
- b) Capsule
- c) Spore
- d) Teichoic acid
- e) Type III secretion system

7.1) Which of the following carriers of *F. tularensis* is the most common for transmission to a human host?

- a) Domestic cats
- b) Birds
- c) Ticks
- d) Domestic cats and dogs
- e) Rabbits and ticks

7.2) Which of the following locations is the least likely for *F. tularensis* (tularemia) to be found?

- a) Arkansas
- b) Oklahoma
- c) Missouri
- d) Pennsylvania
- e) Australia

7.3) What growth factors are required for *F. tularensis*?

- a) Heme (X)
- b) NAD (V)
- c) Heme and NAD (X and V)
- d) Cysteine
- e) Cysteine and heme (X)

Match the clinical presentation with the species of *Brucella*:

8.1) Severe, acute disease with complications

- common a) *B. canis* (dogs)**
- d) *Francisella tularensis*

8.2) Mild disease with animal loss of fetus b) *B. suis* (hogs)

- c) *Bordetella pertussis*

8.3) Chronic, suppurative, destructive disease c) *B. abortus* (cattle)

- b) *Pseudomonas aeruginosa*

8.4) Mild disease with suppurative complications d) *B. melitensis* (goats/sheep)

- a) *Streptococcus pneumoniae*

8.5) A doctor is struggling to diagnose a woman's flu-like illness. She complains of a fever that rises during the day and peaks after dinner (undulant fever), fatigue, spinal tenderness, and loss of appetite. Her lymph nodes are enlarged in physical exam. The doctor has trouble narrowing down the possible etiologies until he hears that the woman tasted goat cheese at a French village a month before the onset of her symptoms. Which of the following is the most likely cause?

- e) *Brucella* species

38 – Miscellaneous Gram-Negative Bacilli

1.1) Which of the following is most likely caused by *Legionella*?

- a) Bloody diarrhea
- b) Fever lasting less than 24 hours
- c) Atypical pneumonia
- d) UTI
- e) Meningitis

1.2) Which of the following is the most likely location to find *Legionella pneumophila*?

- a) Water
- b) Soil
- c) Food
- d) Plants
- e) Desert

2.1) What kind of media is most commonly used to grow *Legionella*?

- a) Chocolate (CHOC)
- b) Blood agar plate (BAP)
- c) Bile Esculin agar (BEA)
- d) MacConkey agar (MAC)
- e) Buffered charcoal yeast extract agar (BCYE)

2.2) What growth factors are required for *Legionella*?

- a) Heme (X)
- b) NAD (V)
- c) Heme and NAD (X and V)
- d) Cysteine and iron
- e) Cysteine and heme (X)

2.3) Which of the following laboratory tests for *Legionella* uses indirect fluorescent antibody (IFA)?

- a) Culture
- b) Urine antigen test
- c) Nucleic acid amplification assay
- d) Serology
- e) Identification (microscopy)

Match the following clinical illness with the organism:

3.1) Periodontitis, endocarditis, bacteremia from dog or cat bites

- b) *Capnocytophaga*

3.2) Rat-bite fever (irregular fever)

- a) *Streptobacillus*

3.3) Subacute endocarditis

- c) *Cardiobacterium*

3.4) Trench fever (severe headache), cat-scratch disease, angiomatosis

- d) *Bartonella*

40 – Anaerobic, Spore Forming, Gram-positive Rods

1) Which of the following is NOT true (in general) for *Clostridium*?

- a) Gram-negative
- b) Bacilli shaped
- c) Spore-forming
- d) Obligate anaerobes
- e) Unable to reduce sulfate to sulfite

2.1) A teenage girl enters the emergency room suffering painful muscle spasms. Throughout her examination, she sustains a facial sneer, a stiff arched back, and clamped palms. Her father is anxious about the fact that she has also experienced difficulty eating, probably due to a stiff jaw. The father affirms that her daughter is usually quite active and boasts how, a week ago, she continued a soccer game even after falling on a nail in the field. Which of the following is the most likely cause?

- a) *C. difficile*
- b) *C. perfringens*
- c) *C. septicum*
- d) *C. botulinum*
- e) *C. tetani*

2.2) A woman straggles into the emergency room with a marked paralysis of her upper body. She describes the paralysis as a weakness that began in her neck and spread to her arms. She also complains of blurred double vision and requests water to soothe her dry throat. Though she has no fever, she appears quite dizzy and her eyelids are drooping. The day before, she returned from a camping trip where she insists she maintained good hygiene, limiting her diet to canned food only.

Which of the following is the most likely cause?

- a) *C. difficile*
- b) *C. perfringens*
- c) *C. septicum*
- d) *C. botulinum*
- e) *C. tetani*

2.3) An old woman comes to the doctor with a fever and loose bowels. Her diarrhea occurs in tremendous volumes, she complains, though she doesn't remember seeing blood. She has an unremarkable recent past medical history, except for an infection a few weeks earlier that was treated with clindamycin. Sigmoidoscopy of her colon reveals

yellow-white plaques which the doctor predicted after analyzing her stools for toxins. Which of the following is the most likely cause?

- a) *C. difficile*
- b) *C. perfringens*
- c) *C. septicum*
- d) *C. botulinum*
- e) *C. tetani*

2.4) A man enters the emergency room claiming to have been stabbed two days earlier. Muscles in his arm hurt, and on palpation small air bubbles are felt below the skin. The wound area exudes a blackish, ill-smelling fluid that generates a crackling sound when touched. The patient has a fever, a low blood pressure, marked tachycardia, and urinated very little since his injury. The doctor decides to amputate the arm, as well as monitor the patient for shock and renal failure. Which of the following is the most likely cause?

- a) *C. difficile*
- b) *C. perfringens*
- c) *C. septicum*
- d) *C. botulinum*
- e) *C. tetani*

2.5) Which of the following is a cause of nontraumatic myonecrosis and often exists in

patients with occult colon cancer, acute leukemia, or diabetes?

- a) *C. difficile*
- b) *C. perfringens*
- c) *C. septicum*
- d) *C. botulinum*
- e) *C. tetani*

2.6) Which of the following is associated with Floppy Baby Syndrome?

- a) *C. difficile*
- b) *C. perfringens*
- c) *C. septicum*
- d) *C. botulinum*
- e) *C. tetani*

2.7) Which of the following is associated with Pseudomembrane Colitis (PMC)?

- a) *C. difficile*
- b) *C. perfringens*
- c) *C. septicum*
- d) *C. botulinum*
- e) *C. tetani*

3.1) Which of the following describes the effect of tetanus toxin?

- a) Unregulated excitatory synaptic activity in the motor neurons
- b) Blocks neurotransmission at peripheral cholinergic synapses
- c) Induces depolymerization of actin with loss of cellular cytoskeleton
- d) Produces chemotaxis; induces cytokine production with hypersecretion of fluid; produces hemorrhagic necrosis
- e) C and D

3.2) Which of the following describes the effect of botulinum toxin?

- a) Unregulated excitatory synaptic activity in the motor neurons
- b) Blocks neurotransmission at peripheral cholinergic synapses
- c) Induces depolymerization of actin with loss of cellular cytoskeleton
- d) Produces chemotaxis; induces cytokine production with hypersecretion of fluid; produces hemorrhagic necrosis
- e) C and D

3.3) Which of the following describes the effect of *C. difficile* toxin?

- a) Unregulated excitatory synaptic activity in the motor neurons
- b) Blocks neurotransmission at peripheral cholinergic synapses
- c) Induces depolymerization of actin with loss of cellular cytoskeleton

- d) Produces chemotaxis; induces cytokine production with hypersecretion of fluid; produces hemorrhagic necrosis
e) C and D

41 – Anaerobic, Non Spore Forming, Gram-positive Rods

1.1) What is the best description of the shape of Actinomyces?

- a) Coccus
b) Bacillus
c) Spirillum
d) Diplococcus
e) Filamentous

1.2) Actinomyces grow ____ in culture and are facultatively anaerobic or strictly ____.

- a) Quickly; Aerobic
b) Quickly; Anaerobic
c) Slowly; Aerobic
d) Slowly; Anaerobic

2) Comparing the two, Actinomyces ____ sulfur granules and Nocardia is ____.

- a) Form; Acid-fast
b) Form; Not acid-fast
c) Does not form; Acid-fast
d) Does not form; Not acid-fast

3) Which of the following would lead to a clinical diagnosis for Actinomyces?

- a) Gram-negative, beaded filaments, not acid fast, obligate anaerobe
b) Gram-positive, beaded filaments, not acid fast, obligate anaerobe
c) Gram-negative, rods, acid fast, obligate anaerobe
d) Gram-positive, rods, acid fast, obligate aerobe
e) Gram-negative, cocci, not acid fast, obligate anaerobe

4.1) Which of the following forms of actinomycosis (painful abscesses, growing larger as the disease progresses) is the most common?

- a) Cervicofacial
b) Thoracic
c) Abdominal
d) Pelvic
e) Central nervous system

4.2) Which of the following disease is often confused with actinomycosis?

- a) Endocarditis
b) Herpes
c) Neoplasms
d) Osteomyelitis
e) Chagas disease

42 – Anaerobic Gram-Negative Bacilli

Match the following descriptions with the anaerobic gram-negative bacilli:

1.1) Small, spindle-shaped rod

- d) Fusobacterium

1.2) Pigmented, asaccharolytic (carbohydrate metabolizing) rods

- b) Porphyromonas

1.3) Pigmented and non-pigmented saccharolytic rods

- c) Prevotella

1.4) Rod-shaped, growth in 20% bile

- a) Bacteroides

2) Which of the following is NOT a virulence factor of Bacteroides fragilis?

- a) Polysaccharide capsule allow for adhesion
b) Capsule protects from phagocytosis
c) Superoxide dismutase prevent oxygen toxicity
d) Diarrheal disease caused by heat-labile toxin
e) LPS causes shock

3) Which of the following is NOT a difficulty associated with laboratory diagnosis of anaerobic bacteria?

- a) Contamination of sample with normal bacterial population
b) Drying of the sample causes significant bacterial loss
c) Slow growth of over two weeks causes delay
d) Staining is faint and irregular
e) Transport must be in oxygen free environment

4.1) Which of the following is NOT one of the most common anaerobes found in brain abscess infections?

- a) B. fragilis
b) Prevotella
c) Porphyromonas
d) Fusobacterium
e) Peptostreptococcus

4.2) Which of the following is most commonly seen in intraabdominal infections and bacteremia?

- a) B. fragilis
b) Prevotella
c) Porphyromonas
d) Fusobacterium
e) Peptostreptococcus

5.1) What growth media is used to help differentiate B. fragilis?

- a) Chocolate (CHOC)
b) Thayer-Martin (TM)
c) Blood agar plate (BAP)
d) Bile Esculin agar (BEA)
e) MacConkey agar (MAC)

5.2 Bacteroides are the only Gram-negative bacteria without typical:

- a) Capsule
- b) Endotoxin
- c) Adhesins
- d) Catalase
- e) Fimbriae

43 – Treponema, Borrelia and Leptospira

Match the spirochetal bacteria and the disease caused by each:

1.1) Treponema pallidum

- d) Syphilis

1.2) Leptospira interrogans

- a) Weil syndrome (icterohemorrhagic fever), canicola fever

1.3) Borrelia burgdorferi

- c) Lyme disease

1.4) Borrelia recurrentis

- b) Endemic relapsing fever

2) Which of the following is true for visualizing spirochete?

- a) They can be viewed without significant magnification (e.g. 10x)
- b) They can be viewed with Gram stain
- c) They can be viewed with Giemsa stain
- d) They require special analysis such as dark field illumination or silver stain

3.1) Which of the following groups of people is most at risk for contracting T. pallidum?

- a) Pregnant mothers
- b) Cystic fibrosis patients
- c) Sexually active patients
- d) Elderly patients
- e) Anyone (spread through contact with inanimate objects, such as toilet seats)

3.2) The tissue destruction and lesions observed in syphilis are primarily a consequence of which of the following?

- a) Bacterial capsule
- b) Bacterial endoflagellum
- c) Bacterial overgrowth
- d) Bacterial hyaluronidase
- e) Host immune response

4.1) What stage of syphilis is characterized by disseminating rash, alopecia, lymphadenopathy, and flulike symptoms.

- a) Primary
- b) Secondary
- c) Tertiary

- d) Congenital

4.2) Children born with congenital syphilis often exhibit Hutchinson Triad, which includes deafness, blindness, and centrally notched teeth. If the mother has been exposed to Chlamydia, syphilis, or gonorrhea, the newborn may receive a prophylactic antibiotic for their:

- a) Ears
- b) Eyes
- c) Nose
- d) Mouth
- e) Systemic antibiotic (via IV)

4.3) What is characteristic of primary syphilis?

- a) Painful chancre
- b) Painless chancre
- c) Several painful ulcers in genital region
- d) Several painless ulcers in genital region
- e) Disseminating rash on entire body, soles, and palms

4.4) Of the following organisms that can cross the placenta, which of the following is associated with congenital CN VIII deafness, mulberry molars, saddle nose, blindness, deafness, and cardiovascular problems?

- a) Toxoplasma gondii
- b) Rubella
- c) Cytomegalovirus
- d) Herpes, HIV
- e) Syphilis

5) Which of the following is/are used to confirm nontreponemal assays?

- a) Venereal Disease Research Laboratory (VDRL) test
- b) Rapid Plasma Reagin (RPR) test
- c) Fluorescent treponemal antibody-absorption (FTA-ABS) test
- d) Treponema pallidum particle agglutination (TP-PA) test
- e) C & D

Match the modes of transmission with the spirochete:

6.1) Sexual contact

- a) Treponema pallidum

6.2) Ticks

- c) Borrelia burgdorferi

6.3) Rodents, Dogs, Fish, Birds

- d) Leptospira interrogans

6.4) Human-to-human louse

- b) Borrelia recurrentis

7) Which of the following is an early clinical sign of Lyme Disease and not a late sign?

- a) Musculoskeletal disease (e.g. migratory myalgias, transient arthritis)

- b) Nervous system disease (e.g. Bell palsy, encephalopathy)
- c) Cardiovascular involvement (e.g. AV nodal block)
- d) Erythema chronicum migrans (ECM)
- e) Acrodermatitis chronicum atrophicans (ACA)

8.1) Which of the following locations within the United States has the highest reported cases of Leptospira infection each year?

- a) Minnesota
- b) Pennsylvania
- c) New York
- d) Wisconsin
- e) Hawaii

8.2) A farmer comes to the ER with a 1-week history of flu-like symptoms with photophobia. His severe headache, cough, and myalgias suggest to the physician some kind of respiratory infection. However, more careful physical exam reveals conjunctival suffusion and macular rash. Lab findings include elevated serum bilirubin, alkaline phosphatase, aminotransferase, and creatine phosphokinase. With this clinical picture and lab results, the physician prescribes penicillin G immediately. His suspicions are confirmed later when a spirochete is isolated from the patient's blood. Which of the following is the most likely cause?

- a) Treponema pallidum
- b) Leptospira interrogans
- c) Borrelia burgdorferi
- d) Borrelia recurrentis

44 – Mycoplasma and Ureaplasma

1) Mycoplasma pneumoniae (Eaton agent) are unique among bacteria because their cell membrane contains sterols and they do not have which of the following?

- a) -lactam antibiotic resistance
- b) Flagella
- c) Endotoxin
- d) Capsule
- e) Cell wall

2) Which of the following is associated with Ureaplasma?

- a) Genitourinary tract infection
- b) Atypical pneumonia
- c) Tracheobronchitis
- d) Influenza-like illness
- e) Upper respiratory tract infection

3) Mycoplasma pneumoniae is a common cause of atypical pneumonia (walking pneumonia) and chest x-ray often looks worse than symptoms suggest. Which of the following groups of people is the most commonly affected?

- a) Elderly

- b) Middle-aged adults
- c) School-age children
- d) Neonates
- e) Pregnant mothers

4) Which of the following tests is the most useful currently as an initial laboratory test, has about 65% sensitivity, and has specificity that cross-reacts to other organisms (e.g., Epstein-Barr virus, cytomegalovirus, adenovirus)?

- a) Microscopy
- b) Molecular diagnosis
- c) Complement fixation
- d) Enzyme immunoassays
- e) Cold hemagglutination

45 – Rickettsia

1.1) Which of the following is an organism that prefers to live inside a host cell but may live outside a host cell?

- a) Extracellular pathogen
- b) Intracellular pathogen
- c) Obligate intracellular parasite
- d) Obligate extracellular parasite
- e) Facultative intracellular parasite

1.2) Rickettsia, an aerobic Gram-negative rod, is which of the following?

- a) Extracellular pathogen
- b) Obligate intracellular parasite
- c) Obligate extracellular parasite
- d) Facultative intracellular parasite

Match the following Rickettsia with the disease and location:

2.1) Rocky Mountain spotted fever (Western hemisphere)

- c) Rickettsia rickettsii

2.2) Epidemic typhus (Worldwide)

- d) Rickettsia prowazekii

2.3) Scrub typhus (Asia, Oceania)

- a) Orientia tsutsugamushi

2.4) Q fever (Worldwide)

- b) Coxiella burnetii

Match the following Rickettsia with the vector:

2.5) Cattle, sheep, goats

- b) Coxiella burnetii

2.6) Flying squirrels, louse

- d) Rickettsia prowazekii

2.7) Dogs, rodents, wood/dog tick

- c) Rickettsia rickettsii

2.8) Chiggers, red mites

a) Orientia tsutsugamushi

2.9) A 10-year-old boy in Virginia presents with a rash, fever, and severe headache that began several days ago. The rash began on his palms and soles and has now spread to his trunk. His pediatrician also notes conjunctival redness, and lab studies show proteinuria. The boy's history is significant for a hike in the woods a week ago. The child is given tetracycline and his diagnosis is confirmed by a Weil-Felix test. Which of the following is the most likely cause?

a) Orientia tsutsugamushi

b) Coxiella burnetii

c) Rickettsia rickettsii

d) Rickettsia prowazekii

2.10) A cattle farmer goes to the doctor complaining of mild cough and fever. He says that the fever began abruptly several days ago. His occupation as cattle slaughterer leads the doctor towards a diagnosis, and tetracycline is administered. The diagnosis is confirmed by serology and a negative Weil-Felix test. Which of the following is the most likely cause?

a) Orientia tsutsugamushi

b) Coxiella burnetii

c) Rickettsia rickettsii

d) Rickettsia prowazekii

2.11) A Kosovo refugee sees a volunteer camp doctor complaining of a rash spreading outward from his trunk but sparing his palms and soles. Two days ago, he experiences abrupt onset of fever, headaches, and confusion. On physical exam, the doctor discovers lice in the man's hair. The doctor treats with a delousing regimen and tetracycline. Were he at a hospital, he might confirm the diagnosis with a Weil-Felix test. Which of the following is the most likely cause?

a) Orientia tsutsugamushi

b) Coxiella burnetii

c) Rickettsia rickettsii

d) Rickettsia prowazekii

47 – Chlamydia

1.1) The Chlamydiaceae life cycle has elemental bodies (EBs) that are ____ and reticulate bodies (RBs) that are ____.

a) Metabolically active and infectious; Metabolically inactive and noninfectious

b) Metabolically inactive and infectious; Metabolically active and noninfectious

c) Metabolically active and noninfectious; Metabolically inactive and infectious

d) Metabolically inactive and noninfectious; Metabolically active and infectious

1.2) In the life cycle of Chlamydiaceae, ____ bind to cell receptors triggering endocytosis. ____ inhibit lysosome fusion and form ____, which replicate by binary fission and form ____ that cause the cell to lyse.

a) EBs; EBs; RBs; EBs;

b) EBs; RBs; RBs; EBs;

c) RBs; EBs; EBs; RBs;

d) RBs; RBs; EBs; RBs;

e) RBs; RBs; EBs; EBs;

2) Chlamydia uses ATP for energy in order to construct DNA and proteins as well as encoding their own ribosomes. This makes Chlamydia which of the following?

a) Extracellular pathogen

b) Obligate intracellular parasite

c) Obligate extracellular parasite

d) Facultative intracellular parasite

3.1) A woman is brought to the ER complaining of vaginal discharge and RUQ abdominal pain. On history, the patient reports having many sexual partners. Pelvic exam reveals cervical motion tenderness, and labs of vaginal discharge detect numerous PMNs but no organisms on Gram stain. The doctor makes a diagnosis based on these findings and administers doxycycline and ceftriaxone. Later, surgeons, concerned about the patient's abdominal pain, rule out cholecystitis by imaging, but laparoscopy reveals adhesions around the patient's liver capsule. Which of the following is the most likely cause?

a) Chlamydia psittaci

b) Chlamydia trachomatis

c) Chlamydia pneumoniae (TWAR)

3.2) A bird shop owner visits his doctor complaining of a headache, fever, and dry cough that has worsened over the last few days. The patient also complains of a sore throat and muscle aches. A physical exam reveals bilateral rales upon auscultation and mild splenomegaly. The doctor orders a CXR that reveals a patchy pneumonitis. Diagnosis is confirmed with serological tests. The patient is administered tetracycline and the fever diminishes within 2 days. Which of the following is the most likely cause?

a) Chlamydia psittaci

b) Chlamydia trachomatis

c) Chlamydia pneumoniae (TWAR)

3.3) A 22-year-old student presents with a nonproductive cough, fever, and sore throat. CXR demonstrates diffuse interstitial infiltrate. Sputum Gram stain shows many PMNs but no organism, and a Giemsa stain reveals intracytoplasmic inclusions in epithelial cells. Doxycycline treatment

is begun. Which of the following is the most likely cause?

- a) Chlamydia psittaci
- b) Chlamydia trachomatis
- c) Chlamydia pneumoniae (TWAR)

4.1) Which of the following is NOT used for laboratory diagnosis of C. trachomatis?

- a) Microscopy of Gram-negative rods with no peptidoglycan cell wall
- b) Molecular amplification (e.g. PCR)
- c) Cell culture using certain cell lines (e.g. nonciliated columnar, cuboidal)
- d) Antigen test (e.g. ELISA, fluorescence)
- e) Vaginal specimen cytology

4.2) C. trachomatis would iodine stain ____ and Giemsa stain ____.

- a) Positive; Positive
- b) Positive; Negative
- c) Negative; Negative
- d) Negative; Positive

54 – Herpesviruses

1) Which of the following describes the structure of herpes viruses?

- a) Double-stranded DNA, icosahedral 162 capsid, enveloped
- b) Double-stranded DNA, icosahedral 162 capsid, non-enveloped
- c) Single-stranded DNA, icosahedral 162 capsid, enveloped
- d) Single-stranded DNA, icosahedral 162 capsid, non-enveloped
- e) Single-stranded RNA, icosahedral 162 capsid, enveloped

Match the site of latency with the virus:

2.1) Sacral ganglia

- b) Herpes simplex type 2 (HSV-2)

2.2) Dorsal root ganglia

- c) Varicella-zoster virus (VZV)

2.3) B cells

- d) Epstein-Barr virus (EBV)

2.4) Trigeminal ganglia

- a) Herpes simplex type 1 (HSV-1)

2.5) Mononuclear cells

- e) Cytomegalovirus (CMV) & HHV-6

Match the clinical presentation of recurrent infection with the virus:

2.6) Genital herpes, neonatal herpes

- c) HSV-2

2.7) Shingles, chickenpox

- e) VZV

2.8) Cold sores, gingivostomatitis

- b) HSV-1

2.9) Mononucleosis heterophile + (“kissing disease”)

- a) EBV

2.10) Mononucleosis heterophile -, cytomegalic inclusion disease

- d) CMV

2.11) Which of the following uses giant cells with “owl’s eye” intranuclear inclusion bodies for laboratory diagnosis?

- a) Herpes simplex type 1 (HSV-1)
- b) Herpes simplex type 2 (HSV-2)
- c) Varicella-zoster virus (VZV)
- d) Epstein-Barr virus (EBV)
- e) Cytomegalovirus (CMV)

2.12) The Tzanck smear, characteristic cytopathologic effects in a scraping of the base of a lesion, is used for laboratory diagnosis of all of the following EXCEPT:

- a) Herpes simplex type 1 (HSV-1)
- b) Herpes simplex type 2 (HSV-2)
- c) Varicella-zoster virus (VZV)
- d) Epstein-Barr virus (EBV)

2.13) In which of the following do T cells appear as atypical lymphocytes (Downey cells)?

- a) Epstein-Barr virus (EBV)
- b) Varicella-zoster virus (VZV)
- c) Cytomegalovirus (CMV)
- d) Herpes simplex type 1 (HSV-1)
- e) Herpes simplex type 2 (HSV-2)

2.14) Which of the following has spurious production of an IgM antibody to the Paul-Bunnell antigen (heterophile antibody)?

- a) Epstein-Barr virus (EBV)
- b) Varicella-zoster virus (VZV)
- c) Cytomegalovirus (CMV)
- d) Herpes simplex type 1 (HSV-1)
- e) Herpes simplex type 2 (HSV-2)

2.15) A vaccine (live attenuated) only currently exists for which of the following?

- a) Herpes simplex type 1 (HSV-1)
- b) Herpes simplex type 2 (HSV-2)
- c) Varicella-zoster virus (VZV)
- d) Epstein-Barr virus (EBV)
- e) Cytomegalovirus (CMV)

2.16) Cancer (Burkitt lymphoma, nasopharyngeal carcinoma, Hodgkin disease) is only associated with which of the following?

- a) Herpes simplex type 1 (HSV-1)
- b) Herpes simplex type 2 (HSV-2)

- c) Varicella-zoster virus (VZV)
- d) Epstein-Barr virus (EBV)
- e) Cytomegalovirus (CMV)

3.1) A 2-year-old child experiences a rapid onset of high fever that lasts for 3 days and then suddenly returns to normal. Two days later, a maculopapular rash appears on the trunk and spreads to other parts of the body. Which of the following is the most likely cause?

- a) Herpes simplex type 1 (HSV-1)
- b) Herpes simplex type 2 (HSV-2)
- c) Varicella-zoster virus (VZV)
- d) Epstein-Barr virus (EBV)
- e) Cytomegalovirus (CMV)
- f) Herpes lymphotropic virus (HHV-6) and Human herpesvirus 7 (HHV-7)
- g) Kaposi sarcoma-related virus (HHV-8)

3.2) A Jewish AIDS patient from Israel presents to the ER with red-brown raised nodules on the lower limbs, face, and genitalia. Lymphedema is found upon palpation. The patient complains about difficulty eating and dark growths are found along the gum line.

Which of the following is the most likely cause?

- a) Herpes simplex type 1 (HSV-1)
- b) Herpes simplex type 2 (HSV-2)
- c) Varicella-zoster virus (VZV)
- d) Epstein-Barr virus (EBV)
- e) Cytomegalovirus (CMV)
- f) Herpes lymphotropic virus (HHV-6) and Human herpesvirus 7 (HHV-7)
- g) Kaposi sarcoma-related virus (HHV-8)

3.3) A 34-year-old kidney transplant patient currently on immunosuppressants complains of shortness of breath and coughing. Physical exam reveals fever and abnormal lung sounds while chest x-ray indicates interstitial infiltrates in the lungs. No cysts are detected on silver stain of bronchoalveolar lavage fluid, ruling out Pneumocystis carinii infection. The doctor makes a diagnosis after viewing a sample of the patient's lung tissue, which shows abnormal giant cells. Which of the following is the most likely cause?

- a) Herpes simplex type 1 (HSV-1)
- b) Herpes simplex type 2 (HSV-2)
- c) Varicella-zoster virus (VZV)
- d) Epstein-Barr virus (EBV)
- e) Cytomegalovirus (CMV)
- f) Herpes lymphotropic virus (HHV-6) and Human herpesvirus 7 (HHV-7)
- g) Kaposi sarcoma-related virus (HHV-8)

3.4) A 55-year-old man is hospitalized for a recent onset of high fever, headaches, and sporadic sensations of smelling sausages. Physical exam reveals neck stiffness, prompting the physician to perform a lumbar puncture. CSF values indicate

elevated lymphocytes, elevated proteins, and normal glucose. A CT image confirms encephalitis localized to the temporal lobes. A diagnosis is confirmed by PCR of the CSF. The physician begins treatment with acyclovir and informs the patient that he may suffer permanent neurological abnormalities from the infection. Which of the following is the most likely cause?

- a) Herpes simplex type 1 (HSV-1)
- b) Herpes simplex type 2 (HSV-2)
- c) Varicella-zoster virus (VZV)
- d) Epstein-Barr virus (EBV)
- e) Cytomegalovirus (CMV)
- f) Herpes lymphotropic virus (HHV-6) and Human herpesvirus 7 (HHV-7)
- g) Kaposi sarcoma-related virus (HHV-8)

60 – Orthomyxoviruses

1.1) Which of the following is NOT true for influenza viruses?

- a) Envelope contains hemagglutinin (HA)
- b) Envelope contains neuraminidase (NA)
- c) Envelope lined with two M proteins
- d) Capsid symmetry is pleomorphic (spherical or tubular)
- e) Influenza A, B, and C have 8 genomic segments

1.2) Which of the following is true for influenza viruses?

- a) Double-stranded DNA
- b) Double-stranded RNA
- c) Single-stranded positive-sense RNA
- d) Single-stranded negative-sense RNA
- e) Not a DNA or RNA virus

2) Which of the following is true in comparing influenza A to influenza B?

- a) A has antigenic drift and shift, affects a mixture of animal and human
- b) A has antigenic shift, affects only humans
- c) B has antigenic drift and shift, affects a mixture of animal and human
- d) B has antigenic shift, affects only humans
- e) A has antigenic drift, affects only humans

3.1) Given an influenza virus

A/Bangkok/1/79/(H3N2), what does 1/79 stand for?

- a) The type of influenza virus
- b) The location it was originally isolated
- c) The date it was originally isolated (January, 1979)
- d) The virulence ration (one person can infect 79 others)
- e) The antigens present

3.2) Given an influenza virus

A/Bangkok/1/79/(H3N2), what does (H3N2) stand for?

- a) The type of influenza virus

b) The location it was originally isolated (latitude, longitude)

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c) The date it was originally isolated (January, 1979)

d) The virulence ration (one person can infect 79 others)

e) The antigens present

4) Influenza virus B ____ accomplish antigenic shift and therefore ____ cause pandemics, unlike Influenza virus A.

a) Can; Can

b) Can; Cannot

c) Cannot; Cannot

d) Cannot; Can

5) How is influenza transmitted?

a) Aerosols from cold, dry air such as outdoors in the winter

b) Aerosols from person-to-person such as from coughing

c) Fecal-oral such as from a cook that does not wash their hands

d) Vector-borne such as from lice

e) Water-borne such as from drinking contaminated fluids

6.1) Which of the following is the least likely clinical syndrome associated with influenza viral infections?

a) "Seal bark" cough in children (croup)

b) Fever persisting for 3-8 days

c) Otitis media in children

d) Malaise, headache, and myalgia

e) Secondary bacterial pneumonia

6.2) Which of the following increases the risk of Reye syndrome, which is acute encephalitis affecting children after acute febrile viral infections?

a) Aspirin

b) Tylenol

c) Ibuprofen

d) Antibiotics

e) Influenza vaccination

7.1) Which of the following is true regarding the drugs amantidine and rimantidine?

a) Inhibit an uncoating step of the influenza A virus but do not affect the influenza B and C viruses

b) Inhibit influenza A as enzyme inhibitors of the neuraminidase, preventing virus release but does not affect the influenza B and C viruses

c) Inhibit an uncoating step of both influenza A and B virus but do not affect the influenza B and C viruses

d) Inhibit both influenza A and B as enzyme inhibitors of the neuraminidase, preventing virus release

7.2) Which of the following is true regarding the drugs zanamivir and oseltmivir?

a) Inhibit an uncoating step of the influenza A virus but do not affect the influenza B and C viruses

b) Inhibit influenza A as enzyme inhibitors of the neuraminidase, preventing virus release but does not affect the influenza B and C viruses

c) Inhibit an uncoating step of both influenza A and B virus but do not affect the influenza B and C viruses

d) Inhibit both influenza A and B as enzyme inhibitors of the neuraminidase, preventing virus release

8.1) The influenza vaccine (killed, formulin-inactivated) is available annually and contains the most likely strain(s) to be present for the upcoming season. How many strains of influenza are included in common vaccinations?

a) 1

b) 3

c) 5

d) Tens

e) Hundreds

8.2) Due to the growth process of the influenza vaccine, people allergic to which of the following should avoid the vaccine due to possible allergic reaction?

a) Peanuts

b) Shellfish

c) Wheat

d) Soy

e) Eggs

Saudi council examination (bacteriology questions)

Choose the correct answer:

(1) the best anti coagulant in blood culture is?

- *sodium oxalate
- *sodium citrates
- *sodium sulphate

(2) all the following samples are stained using gram stain except?

- *water culture
- *sputum
- *stool

(3) the percentage of sodium chloride in agar culture is?

- *0.058%
- *58.0%
- *0.58%

(4) agar is characterized by all the following except?

- *freezing point is 42c & melting point is 100c
- *nutritive
- *un-nutritive

(5) gram stain starts with?

- *iodine
- *crystal green
- *methyl violet /

(6) the causative of toxoplasma is?

- *flees
- *dogs
- *cats

(7) gram negative samples are stained with?

- *yellow color
- *blue color
- *red color

(8) the color of cholera when cultured on TCBS?

- *blue
- *green
- *yellow

(9) the diameter of micro pore filter used in bacteria filtration is?

- *0.033microns
- *2.2microns
- *0.22microns

(10) leishmania is transported by?

- *mosquitoes

*pugs

*sand fly

(11) to investigate one sample containing floro-carbon we use which microscope?

- *light microscope
- *brilliant microscope
- *florescent microscope

(12) virus is similar to live organisms in?

- *growth
- *movement
- *reproduction

(13) the largest resolution of the microscope is?

- *0.02microns
- *2.0microns
- *0.2microns

(14) which of the following causing enlargement of RBCs?

- *reticulocytes
- *leishmania
- *plasmodium

(15) the best sample for the culture of children paralysis virus is?

- *anal swab
- *blood culture
- *stool culture

(16) dry air oven is used to sterilize?

- *water
- *culture media
- *sand

(17) to differentiate between the two streptococci group which enzyme is used?

- *coagulase
- *kinase
- *catalase

(18) the microscope which used in investigate syphilis is?

- *light microscope
- *ultra-violet microscope
- *dark field microscope

(19) the antibiotic disc which differentiate between group A streptococci and other groups is?

- *neomycin
- *tetracycline
- *bacitracin

(20) all of the following is true for salmonella

except?

*motile

*produces H₂S

*oxidase positive

(21) the nutritive substance in culture media is?

*sugar

*starch

*agar

(22) the best media for urin culture is?

*blood agar

*chocolate agar

*cled agar

(23) the sterilization of autoclave is?

*85c for 30min

*150c for 30min

*121c for 15min

(24) shigella soni colored in maconkey & EMB?

*colorless

*red

*pink

(25) the oil emertion lens is

*10

*40

*100

(26) the dwarf worm is?

*schistosoma

*tenia saginata

*H.nana

(27) all of the following are present in gram stain except?

*safranine

*iodine

*malachite green

(28) the diagnostic stage of amoeba is?

*cyst

*trophozoite

*all previous

(29) to check the intestinal efficacy the following test is done?

*pepsin

*lipase

*stool fats

(30) the worm that causes blood in urin?

*ascaris

*fasciola

*schistosoma haematobium

(31) the significant count of bacteria to be inflammation is?

*less than 10⁵

*more than 10³

*more than 10⁵

(32) to investigate gram stained samples we use the following microscope?

*double phase microscope

*florescent microscope

*light microscope

(33) all the following bacteria are interobacter except?

*E.coli

*proteus

*non of the previous

(34) in the microscope when using objective lens 10 & eye lens 10 the magnification power of the microscope is?

*10

*1000

*100

(35) all the following parameters affecting gram staning except?

*use H₂SO₄

*add absolute alcohol after washing

*delaying the dryness of the slide

(36) malaria chizonts are present in?

*reticulo-endothelial

*leukocyte

*RBCs

(37) solidifying agent in culture media is?

*wax

*starch

*agar

(38) agar which used as a solidifying agent in culture media concentration is?

*5-9%

*4-9%

*1-2%

(39) to sterilize culture media we use?

*boiling

*hot oven

*autoclave

(40) when focusing a stained smear under oil

immersion field the magnification is?

- *10
- *40
- *100

(41) generally diagnosed by recovery & identification of typical larva in stool?

- *hook worms
- *t.trichura
- *s.stercoralis

(42) enlarged RBCs are common in?

- *p.malaria
- *p.falciparum
- *p.vivax

(43) which of the following is not laying eggs in small intestine?

- *hook worm
- *t.saginata
- *pin worm

(44) blood sample is used to diagnose?

- *C.tetani
- *C.diphtheria
- *non from them

(45) how much water should we add to 500ml of a solution of 10% of NaOH to bring it to 7.5%?

- *666
- *250
- *166

(46) a standard micro plates in ELISA test has?

- *98 wells
- *94 wells
- *96 wells

(47) the enzyme in ELISA testing is present in the?

- *buffer
- *micro plate
- *conjugate

(48) antigen antibody complex are?

- *weakly bound
- *no bounds
- *strongly bound

(49) washing must be done in all heterogeneous ELISA technique because?

- *increase the specificity
- *increase the sensitivity
- *it removes the excess binding

(50) the label in ELISA tests is?

- *radio active substance
- *antibody
- *enzyme
- (51) polio myelitis is transmitted through?
- *skin
- *respiration
- *feco-oral

(52) malaria does not grow in?

- *EDTA blood
- *heparin zed blood
- *plasma

(53) serious that causes food poisoning?

- *staph albus
- *salmonella typhi
- *salmonella enteritidis

(54) which of the following causes UTI & INDOL positive?

- *klebsiella
- *staphylococci
- *E.coli

(55) blood transfusion can transmit?

- *HIV
- *CMV
- *all of the previous

(56) amoeba moves by?

- *cilia
- *flagella
- *pseudopodia

(57) one of the following is capsulated bacteria?

- *streptococci
- *E.coli
- *klebsiella

اسئلة اختبار يوم 2012/1/21

الامثلة

7. B- cell produce

- a. Antibodies
- b. Cytokines
- c. Sugar
- d. Toxic
- e. Interferon

11. Fixed tissue macrophages are

- a. Basophiles
- b. Monocytes
- c. Lymphocytes
- d. Neutrophils
- e. Eosinophils.

16. Gram positive rods give gray colony color

- a. Bacillus anthracis
 - b. E.coli
- 10

- c. Shigella
- d. Mycobacterium

17. Anticoagulant used in W.B.Cs counting

- a. Sodium citrate
- b. Ammonium oxalate
- c. SPS
- d. EDTA
- e. Heparin

31. Infective stage of Taenia:

- a. Larva
- b. Cercaria
- c. Embryonated egg
- d. Cysticercus
- e. Metacercaria

57. Taenia saginata diagnostic by

- a. Gravid segment
- b. Ova in stool
- c. Cyst
- d. Trophozoite
- e. Larva in stool.

60. Infective stage in malaria

- a. Cyst
- b. Trophozoite

c. Ova

d. Sporozoites

e. Larva

96. Hypoglycemic hormones

- a. Amylase
- b. Insulin
- c. Lipase
- d. Glycogene
- e. Trypsin

هذا السؤال لعب في حسبته غير في السؤال والاجوبة افهموا تماما سؤال 99

99. A cervical not a vaginal swab is required for the most successful isolation from women's

- a. Trichomonas vaginalis
- b. N.gonorrhoea
- c. S.hematobium
- d. Ascaris lumbricoid

سؤال 102 سألني ايش لون التيوب اللي يستخدم في الكميستري شايفين كيف اللف

102. Heparin tube color

- a. Red
- b. Blue
- c. Green
- d. Yellow

سؤال 108 خلى السؤال جواب وخلى الجابة في السؤال وغير في الاختيارات

108. HAV virus transmitted

- a. Blood
- b. Sexually
- c. Feco-oral
- d. ALL

حتى سؤال 111 غير في الاختيار يعني قال من 40-50 ثانية

111. Normal plasma clot APTT

- a. 36 – 50 Sec.
- b. 1 – 16 Sec.
- c. 12 – 15 Sec.
- d. 1 – 4 min

حتى سؤال 128 جابه بطريقة غريبة

Cells not contain nucleus.128

- a. Erythrocyte=RBC

- b. Leukocyte
- c. Platelets
- d. blast cell

137. Which the following catheters collect urine specimen in prolonged period

- a. Hard
- b. Soft
- c. Italian
- d. Foley

سؤال 151 جاب منه سؤالين وغير في الاجوبة وصراحة انا مرة حسنت لكن اتب لكم كيف جاتني الاجوبة

151. Genital disease can caused by the following

- a. Gonorrhea only
- b. Trichomonas only
- c. Gonorrhea & trichomonas
- d. Non of the above

س في الاختبار جاني كذا

151. Genital disease can caused by the following

- a. Gonorrhea only
- b. Trachomatis only
- c. Gonorrhea & trachomatis
- d. Non of the above

انا اخترت a و □ اعلم

161. Transmit through sexual intercourse

- a. Tricurus tricura
- b. N.gonorrhoea& Trichomonas vaginalis
- c. Sternglyoids stercuralis
- d. S.hematobium

حتى هذا السؤال الاختيارات جاتني كذا

- a. Gonorrhea only
- b. Trachomatis only
- c. Gonorrhea & trachomatis
- d. Non of the above

انا اخترت a و □ اعلم

في هذا السؤال جابلي اسم المرض الثاني اللي يسببه نفس الطفيل اللى هو cause of visceral

176. Cause Kala- azar:

- a. leishmania tropica
- b. leishmania braziliense
- c. leishmania donovani

d. leishmania Mexicana

180. Eosinphil raised in the following except?

- a. Allergic
- b. Parasitic disease
- c. Hodgkin disease
- d. Bacterial disease

183. Factor I of blood clotting is:

- a. Christmas factor
- b. Fibrinogen
- c. Prothrombin
- d. Thromboplastin

220. Westrgren test used for

- a. ESR
- b. HB
- c. AG-AB reaction
- d. PT

228. The main site of production of ATP in the cell is the 66

- a. Cell wall
- b. Cell membrane
- c. Cytoplasm
- d. Mitochondria

238. A pheresis is the collection of

- a. CSF
- b. Bone marrow aspiration
- c. Blood component
- d. 24 h. urine

241. Bordetella pertussis is the cause of

- e. Scarlet fever
- a. Whooping chough
- b. Rheumatic fever
- c. Pneumonia

243. Blood collected on plain tube (without anticoagulant) must

- a. Be incubate at 37c for 30 min
- b. Not be clotted
- c. Be hemolysed
- d. Be mixed

غير في الاختيارات

251. Thrombocytopenia seen in:

- a. Megaloblastic anemia
- b. APlastic anemia
- c. Iron deficiency
- d. Pernicious anemia

269. In the formol-ether technique the parasite found in:

- a. ether layer
- b. formol layer
- c. sediment
- d. Fecal debris

سؤال 304 جاني بنفس الصيغة تماما

304. Pathogen should do:-

- a. Infect-transmitted-Reproduce
- b. Reproduce- Infect-Trans
- c. transmitted – Infect – Reproduce
- d. ALL
- e. Non above

هذا السؤال جاني بالتمام

307. In chemistry lab use:-

- a. Green tube
- b. Red tube
- c. Blue tube
- d. Lavender

315. We done the following exam for donor except:-

- a. HIV
- b. HCV
- c. HBV
- d. HAV

335. To differentiate between hemophilia A and B

- a. Leukocyte count
- b. Factor assay
- c. PT and PTT assay
- d. All of the above

349. Food poisoning caused by

- a. Clostridium tetani
- b. E.coli
- c. Campylobacter
- d. Clostridium perfringens

334. Tubes used in sugar analysis

- a. Brown
- b. Blue
- c. Red
- d. Green

342. All of the following bacteria cell components except

- a. Cell wall
- b. Cell membrane
- c. Cytoplasm
- d. Pili
- e. Mitochondria

345. Eye swab culture in

- a. MacConkey
- b. CLED
- c. Chocolate
- d. XLD

350. Heparinized syringe use to collect _____ sample

- a. Synovial
- b. CSF
- c. Venous
- d. Arterial

400. The (u) unit use to evaluation?

- a. Protein in serum
- b. Hemoglobin
- c. Hormone assay
- d. Enzymatic activity

403. Non streptococci:

- a. S.pyogenes
- b. S.agalactiae
- c. S.aureus
- d. S.pneumonia

إختبار اخصائي مختبرات طبية 2012/9/17

بسم الله الرحمن الرحيم
وبه نستعين

اللهم وفقنا في امتحاننا وألهمنا فيه الصواب واجز عن هذا العمل بفضلك
خير الجزاء لأهله وأصحابه

All of the following are sources of serum alkaline phosphatase except:

Liver
Placenta
Intestine

Brain
Feedback

The source of elevated alkaline phosphatase can be identified by electrophoresis of tissue specific isoenzymes at alkaline pH. Liver and bone are the most commonly identified isoenzymes

A patient with atypical (reactive) lymphocytes in his peripheral blood smear should be tested for:

Herpes simplex virus infection
Epstein-Barr virus infection
Bacterial meningitis

Acute leukemia
Feedback

Epstein-Barr virus causes infectious mononucleosis, which is associated with atypical (reactive) lymphocytosis

If greater than 50% lymphocytes were found on the peripheral blood smear of a 5 month old child you would suspect which of the following conditions:

Acute viral infection
Immune deficiency syndrome
Normal finding
Infectious hepatitis

Feedback

45 to 75% of the WBCs normally seen in the peripheral blood of infants are lymphocytes

(1)

Match the type of media from the drop down box with the phrase listed below that best describes that media:

Contains certain factors that allow colonies of specific

organisms to appear different than other colonies.

Media that contains agents that inhibit all but one specific organism.

Encourages the growth of specific types of organisms.

Feedback

Enrichment- Media which encourages the growth of specific types of organisms.

Differential- Media which contains certain factors that allow colonies of specific organisms to appear different than other colonies.

Selective- Media that contains agents that inhibit all but one specific organism.

Expected life span of a neutrophil in the peripheral blood of an adult is:

3 days

1 day

2 hours

6 hours

Feedback

Neutrophil reside in the peripheral circulation for only a few hours (approx. 2 hours) before entering the tissues and body cavities

Bacteria which require oxygen for proper growth are termed:

Obligate anaerobes

Obligate aerobes

Facultative anaerobes

Microaerophiles

Feedback

Bacteria which require oxygen for proper growth are termed obligate aerobes. These organisms will only grow in the presence of oxygen, usually because their metabolic processes require it.

Which one of the following organisms do not typically stain with an acid-fast stain, or one of its variants:

Mycobacterium

Cryptosporidium

Actinomyces israelii

Nocardia

Feedback

Mycobacterium, Cryptosporidium, and Nocardia each

stain with a form of acid-fast stain. The only choice listed that does not is *Actinomyces israelii*; therefore this is the correct answer.

Which one of the following statements about TSH is true:

It is decreased in primary hyperthyroidism

It is decreased in primary hypothyroidism

A sensitive TSH assay is not a good screening test for thyroid function

Diffuse toxic goiter is associated with elevated TSH levels.

Feedback

A sensitive TSH assay is now considered the most cost effective method of screening for thyroid disorders. In the absence of pituitary and hypothalamic disease, TSH is decreased in hyperthyroidism. and increased in hypothyroidism, with few exceptions. Diffuse toxic goiter is a cause of primary hyperthyroidism, and would be associated with decreased TSH.

Match deficiency states with their respective vitamins.

Night blindness

Beriberi

Rickets

Scurvy

Feedback

Thiamine deficiency can cause Beriberi. Vitamin C deficiency can cause Scurvy. Vitamin A deficiency can cause night blindness. Vitamin D deficiency can cause rickets.

Rh immune globulin therapy in postpartum women provides:

Long term protection

Antibody blocking

Passive protection

Active immunity

Feedback

Protection against alloimmunization is only for the

recent pregnancy. There is of course no long term protection against the development of Rh antibodies if the patient is exposed again in the future.

The classification of Du refers to:

Weakly reacting antigen forms of D

Weakly reacting anti-D antibodies

Rh(D) negative blood

Other subgroups of the Rh system (i.e. C, E)

Which one of the following tests would be positive in the presence of *Klebsiella*:

Methyl red test

Coagulase test

CAMP test

Voges-Proskauer test

Feedback

A positive Voges-Proskauer test indicates the production of acetoin. It is converted to diacetyl, which is subsequently converted to a red complex in the presence of creatine and naphthol. An organism which is Voges-Proskauer positive is usually methyl-red negative and vice versa. *Enterobacter*, *Klebsiella*, *Serratia* and *Hafnia* are usually Voges-Proskauer positive.

The INR (international normalized ratio) is calculated using the following formula: $INR = (PT_{\text{patient}} / PT_{\text{normal}})^{ISI}$ raised to the ____.

ISI

Feedback

The correct answer is the ISI, or the International Sensitivity Index. Manufacturers assign an ISI to each batch of thromboplastin reagent after comparing it to a "working reference" reagent preparation. This working reference has been calibrated against an internationally accepted standard reference preparations.

The red/pink color of the colonies seen on this MacConkey agar plate is an indication of:

gram positive bacilli

non-lactose fermenters

gram negative bacilli

√√

lactose fermenters

Feedback

On MacConkey agar, lactose fermenters will produce a pink-colored pigment which is present in the image below. The gram stain status of these organisms cannot be established with the growth on the plate.

Which of the following is most commonly associated with febrile non-hemolytic transfusion reactions:

Bacterial contamination of the blood

I.V. tubing contaminants

Reaction to plasma proteins

√√

Immune response to leukocytes

Feedback

The immune response in the recipient to donor leukocytes present in a blood product is most commonly associated with febrile, non-hemolytic transfusion reactions

Match each virus with its appropriate nucleic acid content.

Paramyxovirus

Rhabdovirus

Poxvirus

Orthomyxovirus

Feedback

Paramyxovirus: RNA

Rhabdovirus: RNA

Poxvirus: DNA

Orthomyxovirus: RNA

Hemophilia B or Christmas disease is the result of a hereditary deficiency in which coagulation factor:

Factor X

Factor VIII

Factor VII

√√

Factor IX

Feedback

Hemophilia B is a sex-linked recessive disorder characterized by deficiency of Factor IX. It is much less common than Factor VIII deficiency.

TIBC (total iron-binding capacity) is an indirect measurement of which of the following:

Ferritin

Hemoglobin

Ceruloplasmin

√√

Transferrin

Feedback

Transferrin binds iron in the serum, and is proportional to total iron-binding capacity (TIBC). $\text{Transferrin (mg/dl)} = 0.7 \times \text{TIBC (ug/dl)}$

Materials such as strong acids and bases are classified as:

√√

Corrosives

Chemical irritants

Flammable liquids

Carcinogens

Feedback

Corrosives are any liquid or solid that causes visible destruction or irreversible alteration in human skin tissue at the site of contact, or a liquid that has a severe corrosion rate on steel. The term "corrosive" includes all items commonly referred to as acids and most strong bases as well.

Sheep blood agar contains inhibitors to which of the following organisms:

√√

Haemophilus

Staphylococcus

Streptococcus

Listeria

Feedback

Sheep Blood Agar contains NADase which destroys the NAD (V factor) required by Haemophilus for growth.

Identify the cell in this illustration indicated by the arrow:

Metamyelocyte

Segmented neutrophil

vv

Lymphocyte

Monocyte

Feedback

Lymphocytes are generally the smallest normal WBC seen in the peripheral blood.

Group A beta-hemolytic streptococci are best characterized by which of the following:

Positive cAMP test

Optochin sensitivity

Bile esculin-hydrolysis

vv

Bacitracin sensitivity

Feedback

Group B streptococci are characterized by a positive cAMP test. Streptococcus pneumoniae is characterized by Optochin susceptibility Enterococci are positive by the bile-esculin test.

Match the tumor markers below with their corresponding sites of tumor origin.

CEA

PSA

Alpha-fetoprotein

Beta HCG

Feedback

PSA, or prostate specific antigen = Prostate

CEA, or Carcinoembryonic Antigen = Colon

beta hCG, or Human chorionic gonadotropin = Testicles

AFP, or Alpha-fetoprotein = Liver

All of the following are benefits of autologous donation except:

Reduces exposure to infectious agents

vv

Are always on hand in case of an unexpected emergency

Reduces demand for homologous blood

Eliminates sensitization to cellular blood components

Feedback

Autologous units must be drawn before they are needed, and must be readily available, therefore are generally not of use in emergencies.

Which of the following cells is the most common nucleated cell in normal adult bone marrow?

Myeloblast

Promyelocyte

Myelocyte

vv

Metamyelocyte

Feedback

Metamyelocytes constitute 15 - 20% of the nucleated cells in the normal bone marrow.

Myeloblasts constitute <3% of the nucleated cells; promyelocytes, <2% of the nucleated cells; ; and myelocytes constitute approximately 10% of the nucleated cells in a normal bone marrow.

Which of the following factors is not involved in the initial contact phase of the intrinsic pathway:

Factor XII

Fitzgerald Factor (high-molecular weight kininogen)

Fletcher Factor (prekallikrein)

vv

Factor X

Feedback

Fitzgerald and Fletcher Factors are required to complete activation of Factor XII during the contact phase.

Which of the following conditions is associated with elevated serum uric acid levels:

Cushing's syndrome

Pancreatitis

Hyperthyroidism

vv

Gout

Feedback

Gout is a disease manifested by the deposition of crystalline uric acid in joints and soft tissues, with secondary inflammation and pain.

Which of the following terms would be used to express the middle value in a series of results:

Mean

vv

Median

Mode

Standard error

Feedback

Median is the middle value in a series of numbers.

Elevation in CSF total protein may be seen in all of the following conditions except:

Brain tumors

Bacterial meningitis

vv

Parkinson's disease

CVA cerebrovascular accident

The disk diffusion method of measuring antimicrobial sensitivity is also termed:

Tube dilution

vv

Kirby-Bauer

Gel diffusion

Tube titer

Feedback

Still widely used, the Kirby-Bauer disk diffusion technique is a rapid, inexpensive method of testing several antibiotics against a single isolate.

Adult (normal) Hemoglobin is made up of the following composition:

>90% HbA, 5% HbF, 1% HbA2

vv

>95% HbA, <3.5% HbA2, <1-2% HbF

<90% HbA, 10% HbA2, 5% HbF

>90% HbA, 1% HbA2, 5-10% HbF

Feedback

Adult Hemoglobin is made up predominantly of HbA with only small amounts (< 1-2 %) of HbF (fetal hemoglobin).

The lecithin to sphingomyelin ratio (L/S) is used to assess:

Fetal neurological development

vv

Fetal lung maturity

Fetal viability

Fetal liver development

Feedback

An L/S ratio above 2:1 indicates mature lung

development, whereas a ratio below 1.5:1 indicates pulmonary immaturity

Which of the following antibodies is predominantly associated with the secondary antibody response:

✓✓

IgG

IgA

IgM

IgD

Feedback

IgG - Secondary immune response IgM - Primary immune response

Choose the term that describes the most prominent finding in this peripheral smear:

Rouleaux

Normal RBCs

✓✓

Anisocytosis

Feedback

Anisocytosis is a variation in the size of the red blood cells. This slide shows poikilocytosis, but anisocytosis is more prominent here.

Match the correct components with their appropriate grouping:

Patient Red Cells

Reagent Red Cells

Reagent Antisera

Patient Serum

Feedback

In the forward grouping, patients red cells are combined with reagent antisera to detect antigens present on the patient's red cells.

In the reverse grouping, reagent red cells are combined

with patient serum to detect antibodies circulating in the patient which can react with the reagent cell antigens.

Which one of the following is not a system for incubation of anaerobic bacteria:

✓✓

Candle jar

Glove box anaerobic chamber

Anaerobic jar - gaspak

Anaerobic jar - evacuation replacement

The normal range for urine pH is:

4.6 to 5.0

5.0 to 6.0

7.0 to 8.0

✓✓

All of the Above

Feedback

Normal urine pH varies from 4.6 to 8.0. After meals, urine becomes more alkaline due to gastric acid secretion (alkaline tide). At night due to shallow breathing, it becomes more acid. A high meat diet results in a more acid urine than a vegetarian diet, due to excretion of phosphates and sulfates

The most frequent genotype among Rho (D) -negative persons is:

$r' r$

$r' r''$

✓✓

Rr

✓✓

$r'r'$

Feedback

rr is the most frequent genotype among Rh-negative individuals. The genotype symbolized a lack of the D (Rh) gene.

Which of the following observations would best explain

why a peripheral blood smear is exhibiting polychromasia:

Lower RBC count

✓✓

Increased reticulocyte count

Decreased hematocrit

Increased hemoglobin concentration

Feedback

Reticulocytes contain residual RNA which gives a bluish hue to RBCs when they are stained.

The most frequent cause of bacterial meningitis in older adults is:

✓✓

Streptococcus pneumoniae

Neisseria meningitidis

Haemophilus influenzae

Escherichia coli

Feedback

H. influenzae type b usually causes meningitis in infants and children. *N. meningitidis* usually causes meningitis in children and young adults. *Streptococcus pneumoniae* usually causes meningitis in adults. Other organisms can also cause bacterial meningitis, particularly Group B streptococci, and *Listeria monocytogenes* in infants and adults, and *E. coli* in infants.

An increased number of these cells, when found upon microscopic examination of urine is termed:

Glycosuria

✓✓

Hematuria

Uremia

Normal urine

Feedback

Hematuria indicates the presence of red blood cells in the urine

Which factor(s) are important to consider in the validation of test results on acutely intoxicated patients:

✓✓

Condition of the specimen

✓✓

Quantity of specimen available

✓✓

Timing of the specimen

✓✓

Type of specimen submitted

False negative results may occur with both the direct and indirect antiglobulin tests as a result of all of the following except:

Undercentrifugation

Delay in adding antiglobulin reagent

Failure to adequately wash cells

✓✓

Agglutination of red cells prior to addition of antiglobulin reagent

Feedback

Agglutination of red cells prior to addition of antiglobulin reagent due to cold autoantibodies would give a "false" positive result, not a false negative. In this case, the washed red cell sample will agglutinate prior to addition of antiglobulin.

To prepare 500 ml of a 5 % NaOH Solution how many grams of NaOH is required:

5 grams

10 grams

✓✓

25 grams

50 grams

Feedback

A percent solution is prepared by combining grams of material (i.e NaOH) per 100ml of solvent

Which of the following would be the most characteristic

finding in synovial fluid in a case of pseudogout:

Monosodium urate crystals

✓✓

Calcium pyrophosphate crystals

Macrophage infiltration

Mixed RBC/WBC infiltration

Feedback

Calcium pyrophosphate crystals are characteristic of pseudogout.

Gram positive organisms

✓✓

resist acetone-alcohol decolorization

are always decolorized by acetone-alcohol

resist staining by crystal violet

readily stain with safranin in the Gram stain

Feedback

Gram positive organisms resist decolorization with acetone-alcohol. Gram negative organisms are decolorized, and subsequently stain with safranin.

A normal hemoglobin molecule is comprised of the following:

Ferrous iron and four globin chains

✓✓

Four heme and four globin chains

Four heme and one globin chains

One heme and four globin chains

Feedback

A normal hemoglobin molecule consists of a tetramer with a molecular weight of 64,500 daltons. The constituent monomers are each composed of one heme molecule, and one polypeptide globin chain.

Which one of the following does not directly regulate clinical laboratories:

HCFA

✓✓

CDC

CAP

JCAHO

Feedback

The centers of disease control (CDC) develops guidelines and public health policy. It does not directly regulate laboratories

Match type of media on the right with media on the left:

Blood agar

Phenylethylalcohol agar

Selenite broth

Feedback

Blood agar- Nonselective media

Phenylethylalcohol agar- Selective media

Selenite broth- Enrichment media

Which of the following cells are capable of producing antibodies and lymphokines:

Thrombocytes

Macrophages

✓✓

Lymphocytes

Granulocytes

Feedback

Lymphokines are biologically active molecules produced by lymphocytes in response to specific stimulants

Which two of the following crystalline elements are found in acid urine:

✓✓

Cystine

Triple phosphate

Calcium phosphate

✓✓

Tyrosine

Feedback

Crystals and sediment found in acid urine include:
cystine, leucine, calcium oxalate, sodium urate,
sulfonamide, tyrosine, uric acid, and amorphous urates.

Which of the following microscopic techniques is best suited for direct examination of the infectious agent of syphilis?

Light microscopy

Phase microscopy

✓✓

Darkfield microscopy

Electron microscopy

Feedback

Darkfield microscopy allows a lower limit of resolution than bright-field microscopy which helps the tiny spirochetes to be seen in patient samples. In darkfield microscopy, there is a dark background where directly transmitted light is excluded by a dark-field condenser allowing only scattered light to be focused on the specimen. With dark-field microscopy bacteria appear luminous against a dark background.

The proper storage requirements for granulocyte concentrates is:

1 - 6 degrees Celsius, < 12 hours

- 20 degrees Celsius, 48 hours

1 - 6 degrees Celsius, < 24 hours

✓✓

20 - 24 degrees Celsius, < 24 hours

Feedback

Granulocytes may be stored at 20-24 degrees Celsius for up to 24 hours, but should be transfused as soon as possible.

The RBCs seen in this illustration are indicative of:

✓✓

Normal cells

Microcytic cells

Macrocytic cells

Hypochromic cells

Feedback

Normal red cells are uniformly shaped and sized with 2-3mm of central pallor.

Which of the following would be considered the definitive host of a parasite:

Humans

Insect vector

First host infected by the parasite

✓✓

Host in which mature parasites develop

Feedback

A parasite's definitive host is defined as the host in which sexual reproduction occurs.

The Rh nomenclature which uses the letters DCE is found in which of the following genetic models:

Landsteiner

Wiener

✓✓

Fisher -Race

Rhesus

Feedback

Fisher and Race first proposed the existence of the three closely linked genes, and used the DCE terminology to describe their theory.

HLA-A and HLA-B antigens can be detected using which of the following techniques?

Standard crossmatch

✓✓

Lymphocyte cytotoxicity

Immunofluorescent staining

Mixed lymphocyte cultures

Feedback

HLA-A and B antigens are detected by mixing the lymphocytes being tested with known HLA antisera and complement and then measuring the cell lysis (leukocytotoxicity) that occurs.

The term used to describe patients with absence of Rh antigens is:

Rhd

✓✓

Rhnull

Rhmod

Rho

Feedback

Rhnull individuals have no Rh antigens. Rhmod individuals show reduced and varied reactivity with Rh antigens

What does the YELLOW color on the NFPA diamond represent:

A health hazard

A fire hazard

✓✓

A reactivity hazard

A special section

Feedback

Red = Fire hazard Yellow = Reactivity hazard Blue = Health hazard White = Specific hazard

Match clotting factor with its commonly associated Name:

Stable factor

Anti-hemophiliac factor

Christmas factor

Stuart factor

Feedback

Factor VII- Stable factor

Factor VIII- Anti-hemophiliac factor

Factor IX- Christmas factor

Factor X- Stuart factor

Which of the following is not a structural component of a typical virion:

Nucleoprotein core

Capsid *****I

Lipid envelope

✓✓

Icosahedral symmetry

Feedback

An intact viral particle typically consists of a nucleoprotein core, capsomeres making up the capsid, and a lipid envelope (absent in some viruses). The symmetry of a virus is usually icosahedral, or helical.

Fresh frozen plasma should be used for which of the following:

Platelet replacement

✓✓

Coagulation deficiencies

Volume replacement

Albumin replacement

Feedback

FFP, or fresh frozen plasma, should be used to treat coagulation deficiencies- though the levels of factors V and VIII are usually decreased in FFP units. FFP is not used for platelet replacement as there are virtually no platelets in FFP units. FFP should never be used as a volume expander, unless traumatic bleeding is taking place. Finally, FFP is not used to replace albumin in recipients.

Which one of the following statements about the Hepatitis B vaccine is correct?

It is not effective in the majority of cases.

✓✓

It is safe, with minimal side effects.

Factor VII

Feedback

The PTT is prolonged secondary to deficiency of factors of the intrinsic pathway, specifically: prekallekrein, high-molecular-weight kininogen, Factors XII, XI, IX, VIII, X, V, II, and I.

Which of these is arranged from least mature to most mature:

Lymphoblast, Lymphocyte, Prolymphocyte, Stem Cell
vV

Stem Cell, Lymphoblast, Prolymphocyte, Lymphocyte

Stem Cell, Lymphoblast, Lymphocyte, Prolymphocyte

Lymphocyte, Prolymphocyte, Lymphoblast, Stem Cell

Feedback

The appropriate order of the lymphocyte cell line from least mature to most mature is: Stem Cell, Lymphoblast, Prolymphocyte, Lymphocyte.

DR antigens are found in which of the following systems:

Kell system

vV

HLA system

Duffy system

ABO system

Feedback

HLA-DR is a MHC class II(major histocompatibility complex) surface receptor on the cellular surface which is encoded by the human leukocyte antigen complex, or HLA.

Which of the following organisms is not an aerobic organism:

Francisella

vV

Bacteroides

Pseudomonas

Neisseria

Feedback

Francisella tularensis is an aerobic gram-negative coccobacillary organism requiring cystine or cysteine to grow. It causes tularemia, which can manifest as cutaneous papules and ulcers, conjunctivitis, fever, myalgias, and lymphadenopathy. It can be diagnosed by culture on appropriate media, or serology. Bacteroides fragilis is an anaerobic gram-negative rod which is resistant to most penicillins. It can cause a variety of life threatening infections. Pseudomonas aeruginosa is a strictly aerobic gram-negative motile bacillus; it causes a variety of infections especially among patients who are immunocompromised for a variety of reasons, and it causes wound infections in moist air.

The red cells indicated by the arrows in this image exhibit which of the following abnormal erythrocyte shapes?

Acanthocytes

Schistocytes

Spherocytes

vV

Stomatocytes

Feedback

Stomatocytes have a slit like appearance in the area of central pallor - many chemical agents may cause this abnormality.

Which two of the following organisms are gram positive?

Pasteurella

vV

Erysipelothrix

Aeromonas

vV

Lactococcus

Feedback

Erysipelothrix, a genus of bacteria containing a single species, are short gram-positive rods. Lactococcus, a microbe formerly included in the genus Strep Group N1, are gram-positive, catalase negative, non-motile cocci

that are found singly, in pairs, or in chains. Pasteurella and Aeromonas are both gram-negative microbes.

The iodine prep is most helpful to identify which of the following parasitic stages:

Larvae

Eggs

✓✓

Cysts

Trophozoites

Feedback

Trophozoites are not generally motile in iodine stained wet preps

Which of the following conditions is most frequently associated with anti-I:

The correct answer is highlighted below

✓✓

Cold agglutinin disease

Hemolytic transfusion reaction

Delayed transfusion reaction

Infectious mononucleosis

Feedback

Autoanti-I is an insignificant IgM cold agglutinin found in many individuals. It can rarely be the cause of cold autoimmune hemolytic anemia. It is also seen in many patients with Mycoplasma Pneumoniae infection. Alloanti-I is very rare, since there are so few I-negative adults.

What percentage of glycerol is generally used when freezing red cells of rare phenotypes:

70 %

✓✓

40 %

10 %

5 %

Feedback

Cryopreservation of red cells is expensive, and of

limited value for routine use since their ****f life after thawing is only 24 hours. It is invaluable for maintaining an inventory of rare blood phenotypes.

Match each virus with its appropriate nucleic acid content:

Togavirus

Coronavirus

Herpesvirus

Adenovirus

Feedback

Togavirus: RNA

Coronavirus: RNA

Herpesvirus: DNA

Adenovirus: DNA

Which of the following organisms is most likely to be associated with gas gangrene:

Clostridia histolyticum

Pseudomonas aeruginosa

✓✓

Clostridium perfringens

Escherichia coli

Feedback

Clostridium perfringens is most likely to be associated with gas gangrene. Clostridium gas gangrene is a form of lethal necrotizing soft tissue infection of skeletal muscle caused by the toxins and gas produced by this organism

Which one of the following statements about urea is false:

It accounts for 75% of nonprotein nitrogen excreted

It is elevated in a variety of glomerular, tubular, interstitial, and vascular renal diseases

vv

It is decreased in dehydration

The reference range for normal individuals is 7 to 18 mg/dl when expressed as blood urea nitrogen

Feedback

Urea is actually increased during bouts of dehydration.

Which of the following descriptions best describes the term absolute value as it would relate to differential counts.

Relative % of each cell type

vv

Relative % of each cell type X total white cell count

Relative % of each cell type divided by total white count
Specific number of each cell type divided by total white count

Feedback

The absolute cell counts are measurements calculated by multiplying the relative cell percentages by the total white blood cell count.

Which one of the following statements about E.coli O157:H7 is false:

It has been reported in contaminated unpasteurized milk, unpasteurized apple juice, and undercooked hamburger
It can cause hemolytic-uremic syndrome in children

It causes hemorrhagic diarrhea, abdominal pain, and other symptoms

vv

It ferments sorbitol rapidly

Feedback

E. coli O157:H7 is sorbitol negative. It is screened for in a stool specimen using sorbitol McConkey agar, where it produces colorless colonies, indicating that it is not fermenting sorbitol. E. coli O157:H7 is also most often beta-glucuronidase negative, and usually produces an enterohemolysin which leaves a small zone of hemolysis surrounding colonies on a blood agar plate of washed sheep red cells with calcium chloride. Sorbitol negative E. coli should be serotyped to determine if they are the

O157:H7 serotype.

Which of the following would be considered most significant as it relates to serological testing:

Presence of an antibody titer is generally diagnostic

vv

Rise of antibody titers is diagnostic

Concentration of antibody is diagnostic

Cross reactivity is not significant

Feedback

Serological diagnosis of active or recent infection generally requires the demonstration of IgM antibody, or the demonstration of a fourfold rise in the titer of specific IgG antibody.

Which of the following infectious agents represent the greatest risk to the laboratory worker:

AIDS

Meningitis

vv

Hepatitis

Influenza

Feedback

While AIDS is a more serious health threat, hepatitis is far more prevalent, and therefore represents a greater overall risk.

The most common cause of severe life threatening hemolytic transfusion reactions is:

Anti-D

Anti-M

vv

Anti-A, Anti-B, Anti-A, B

Anti-Fya

Feedback

Incompatibility involving the ABO blood group system can cause the most severe type of transfusion reaction.

The predominant cells seen in this CSF are suggestive of:

Normal cytocentrifuged smear

vv

Viral meningitis

Bacterial meningitis

Alzheimer's disease

Feedback

Almost exclusively mononuclear cells are seen, suggestive of viral meningitis.

CSF lymphocytosis is associated with all of the following except:

vv

Cerebral abscess

Viral meningitis

Chronic fungal meningitis

Chronic tuberculous meningitis

Feedback

There are many causes of CSF lymphocytosis.

A zinc deficiency in the elderly is often caused by:

vv

Decreased intake and absorption

Decreased intake and excretion

Increased intake and excretion

Increased excretion and decreased absorption

Feedback

Some elderly individuals can have poor dietary habits which can lead to decreased nutrient absorption, including zinc.

Which of the following will give the best overall picture of a patient's iron stores:

Albumin

Transferrin

Haptoglobin

Ferritin

Feedback

The concentration of circulating ferritin is proportional to the size of iron stores.

The capsular material used to identify capsular subtypes of Pneumococci consists of:

Proteins

vv

Polysaccharides

Lipids

Lipoproteins

Feedback

The Quelling reaction can be used to identify capsular subtypes of pneumococci. Reaction of anticapsular antibody with pneumococcal organisms causes their carbohydrate capsule to swell and alters its refractility.

A simple check which can be employed to verify that hemoglobin and hematocrit values match would be:

Hematocrit X 3 = hemoglobin

vv

Hemoglobin X 3 = hematocrit

Hemoglobin / hematocrit = 3

Hemoglobin + hematocrit = 3

Feedback

The hematocrit is equal to approximately 3 times the hemoglobin level.

Which of the following blood groups is most frequently associated with cold agglutinins:

Kell

Kidd

Duffy

vv

P

Feedback

Kell, Kidd, and Duffy are usually warm reacting IgG antibodies. The most common P system antibody is anti-P1, which is a frequently naturally occurring low titer IgM antibody, seen in most P2 individuals.

Which of the following enzymes is the most sensitive indicator of liver damage associated with alcohol ingestion:

vV
GGT

ALT

AST

LDH

Feedback

GGT elevations precede those of other liver enzymes in cases of chronic ingestion of drugs or alcohol.

The impedance principle shown in this illustration is best described by the following statement:
Blood cells and platelets are counted by the number of the times they scatter light as they pass in front of a mirror.

Blood cells and platelets are counted utilizing a type of defraction gradient technique.

Blood cells and platelets are counted by measuring the drop in transmitted light as they pass through a series of apertures.

vV

Blood cells or other particles are counted and sized based on changes in electrical resistance as they pass between two electrodes.

Feedback

The impedance principle has been the basis for most blood cell counters for more than 25 years.

Which of the following Rh antigens is found the highest frequency in the Caucasian population:
The correct answer is highlighted below

C

E

C

vV

E

Feedback

The e antigen is present in 98% of the Caucasian population.

Factor V is primarily involved in:

Extrinsic pathway only

Neither pathway

Fibrinolysis

vV

Both pathways

Feedback

Activated Factor V and activated Factor X are required to convert prothrombin (Factor II) to Thrombin.

The abnormal RBCs shape seen in this illustration is:

vV

Elliptocytes

Thorn cell

Sickle cell

Target cell

Feedback

Elliptocytes are seen in large numbers in hereditary elliptocytosis. They are also seen in lesser numbers in iron deficiency anemia, and other conditions.

Which of the following options gives in order from most to least important, the factors you would use to select blood for a transfusion:

Major Crossmatch Compatibility, ABO Type Specific Blood, Antigen Negative Blood for Patient with antibody reacting only at room temperature

vV

ABO Type Specific Blood, Major Crossmatch

Compatibility, Antigen Negative Blood for Patient with antibody reacting only at room temperature
Antigen Negative Blood for Patient with antibody reacting only at room temperature, Major Crossmatch Compatibility, ABO Type Specific Blood

Hemoglobin (g/100ml) x 10 / RBC count (millions/mm³) is the formula for calculating:

MCHC

MCV

✓✓

MCH

RDW

Feedback

MCH is the average weight of hemoglobin in the average red blood cell. The value is expressed in picograms (10-12 grams).

Aplastic anemia may be caused by all of the following except:

Infections

Chemical agent

✓✓

Enzyme deficiencies

Ionizing radiation

Feedback

Enzyme deficiencies are usually associated with hemolytic anemias.

Identify the urine sediment elements shown by the arrow:

Cholesterol crystals

Uric acid crystals

Amorphous urate crystals

✓✓

Cystine crystals

Feedback

Cystine crystals are characteristically seen as colorless

hexagonal plates in acid urine. They may be confused with hexagonal uric acid crystals. They can be differentiated from uric acid by their solubility in dilute hydrochloric acid versus crystalline uric acid, which is not soluble in dilute hydrochloric acid. The cyanide-nitroprusside test can be used to confirm the presence of cystine in urine. Cystine crystals are not present in normal urine.

Q1: The colonies of Salmonella Typhi appeared on the plate:

A) Colorless with black centre

B) -----

C) -----

Q2: One of these is Oxidase Positive:

A) Pseudomonas aeruginosa

B) -----

C) -----

Q3: Neisseria meningitis is:

A) Gram -ve Cocci

B) -----

C) -----

Q4: To differentiate between Staphylococcus and Streptococcus use:

A) Catalyze

B) -----

C) -----

Q5: Streptococcus agalactiae (Group B Streptococcus):

A) Inhibited by bacitracin

B) Against antibody A

C) -----

Q6: Error of Gram stain is:

A) Crystal violet more than 1min

B) Safranin 3min

C) Over decolorizing

Q7: MacConkey agar added crystal violet act as:

A) Indicator

B) Growth factor

C) Inhibit Enterococcus Sp

Q8: Indian Ink used to stain:

A) M. tuberculosis

B) -----

C) -----

Q9: Measles (rubeola) is:

A) Koplik's spots marker

B) Caused by paramyxovirus of the genus Morbillivirus

C) Characteristic maculopapular, erythematous

D) Laboratory diagnosis Positive measles IgM

E) Children salivary measles specific IgA

F) Hyperplastic lymph nodes (Warthin-Finkeldey cell,)

G) All others are correct

Q10: Gram +ve with branch:

A) M. tuberculosis

B) Actinomyces israeli

C) -----

Q11: Skin affected with Pus:

A) M. tuberculosis

B) M. leprosy

C) -----

Q12: Small RNA virus is:

A) Adenovirus

B) Rotavirus

C) -----

Q13: Latex virus:

A) Affinity of latex for viral antibody

B) Antigen antibody complex

C) -----

D) -----

Q14: Gram +ve Cocci in cluster will be use median sensitive (inhibited):

A) Penicillin G

B) Erythromycin

C) Vancomycin

D) Methicillin

E) Oxacillin

F) -----

Section 3: Histology & Cytology

Q1: Lymph node with central germ end is:

A) Deep cortex lymph node

B) Medulla of lymph node

C) Red pulp of spleen

D) White pulp of spleen

Q2: Satisfactory of Sputum is:

A) Present of Carbon laden

B) Few leukocytes

C) Mucoid fibre

D) Few squamous cell

E) All of the above

Q3: Satisfactory of FNA is:

A) Needle is in the centre of tumor

B) Needle penetrate the tumor

C) Needle is not close to the tumor

D) -----

Q4: Vaginal papilloma is affect:

A) Skin

B) Lip

C) Ureter

D) Vagina

Q5: Causes of Necrosis is:

A) Chemical Toxins

B) Heat

C) -----

D) -----

Q6: One of these is Cytology used:

A) 95 % Ethanol

B) 70 % Alcohol

C) Methanol

D) -----

Section 4: Hematology & Immunohematology

Q1: To differentiate between Hemoglobin C disease and trait by:

A) Electrophoresis

B) Ruler

C) Meter

D) -----

Q2: Many of Target Cells seen in:

- A) Hb C disease
- B) Aplastic Anemia
- C) Autoimmune Hemolytic Anemia
- D) -----

Q3: Megakaryocyte – Low Platelets seen in:

- A) Aplastic Anemia
- B) Pernicious Anemia
- C) Thrombotic Thrombocytopenic
- D) -----

Q4: PCV (HCT) / RBC count is:

- A) MCV
- B) MCH
- C) MCHC
- D) -----

Q5: 107 fL Hb with normal VitB12 and Folate is:

- A) Iron Deficiency Anemia
- B) Aplastic Anemia
- C) VitB12 deficiency

Q6: Prothrombin Time (PT) is affected by:

- A) Fibrinogen I
- B) Factor VIII
- C) Factor X
- D) -----

Q7: Reject the sample if it:

- A) Hemolysis
- B) Not written Correct request form
- C) -----
- D) -----

Q8: To Transfer Blood not use:

- A) Heparin
- B) CIP
- C) CIA
- D) 1% sodium

Q9: Blood Donor + Patient RBC indicate:

- A) Cross-match
- B) -----
- C) -----

Section 5: Parasitology

Q1: Giardia lablia is the same of (watery stool-diarrhea):

- A) Shigella
- B) Salmonella
- C) ECT
- D) V. Cholera

a full term baby boy brought by his mother weighing 3.8 kg. developed jaundice at 2nd day of life .. coomb's test

–ve ,Hb : 18 ,billrubin : 18.9 & indirect : 18.4

O/E : baby was healthy and feeding well .. the most likely diagnosis is :

- a- physiological jaundice
- b- ABO incompatibility
- c- breast milk jaundice
- d- undiscovered neonatal sepsis

17- a 62 yrs. old female pt. a known case of osteoporosis & on 1 alpha + Ca supplement .. her lab works shows normal level of PO4, Ca & ALP ... her X-ray shows osteopenia with SD = -3.5 The best action is to :

- a- continue on same medications
- b- start estrogen
- c- start estrogen & progesterone
- d-add alevdonate (bisthmus phosphate)

18- a 38 yrs old female ... came to you at your office and her pap smear report was unsatisfactory for evaluation .. the best action is :

- a- consider it normal & D/C the pt.
- b- Repeat it immediately
- c- Repeat it as soon as possible
- d- Repeat it after 6 months if considered low risk
- e- Repeat it after 1 year if no risk

19- a 17 yrs. old school boy was playing foot ball and he was kicked in his Rt. eye .. few hours later he started to complain of : double vision & echymoses around the eye .. the most likely Dx. Is :

- a- cellulites
- b- orbital bone fracture
- c- global eye ball rupture
- e- subconjunctival hemorrhage

20- a 35 yrs old female pt. C/O : acute inflammation and pain in her Lt. eye since 2 days .. she gave Hx of visual blurring and use of contact lens as well ... O/E : fluorescence stain shows dendritic ulcer at the center of the cornea .. the most likely diagnosis is :

- a- corneal abrasion
- b- herpetic central ulcer
- c- central lens stress ulcer
- d- acute episcleritis
- e- acute angle closure glaucoma

21- a 65 yrs old lady came to your clinic with Hx of 5 days insomnia and crying (since her husband died) the best Tx. For her is :

- a- lorazepam
- b- floxitein
- c- chlorpromazine
- d- haloperidol

22- a 25 yrs old Saudi man presented with Hx of mild icterus , otherwise ok .. hepatitis screen : HBsAg +ve , HBeAg +ve , anti HBc Ag +ve (this should be core anti body, because core antigen doesn't leave hepatocyte to the blood "prof. Yasawi") , the diagnosis :

- a- acute hepatitis B
- b- convalescent stage of hep. B
- c- recovery with seroconversion Hep . B
- d- Hep B carrier

e- chronic active Hep. B

23- 25 yrs. old man presented to ur clinic with one month HX of aching pain in the elbow , radiates down to the lateral forearm ..the pt. frequently plays squash ...

O/E:

Pain increases with dorsiflexion of the wrist performed under resistance specially with elbow extended ... the most likely diagnosis :

- a- olecranon stress fracture
- b- olecranon bursitis
- c- lateral tennis elbow
- e- radial tunnel syndrome
- e- ligament sprain

- 24-8 wk Primigravida came to you with nausea & vomiting choose the statement that guide you to hyperemesis gravidarum :

- a- ketonia
- b- ECG evidence of hypokalemia
- c- Metabolic acidosis
- d- Elevated liver enzyme
- e- Jaundice

- 25-Injury of the hand leads to median nerve injury:

- a- claw hand
- b- wrist drop
- c- sensory defect only

- 26-60 year old male was refer to you after stabilization investigation show

Hgb 8,5 g/l , hect. 64% , RBC 7.8 , WBC 15.3

& Plt. 570 Diagnosis :

- a- iron def. Anemia
- b- Hgb pathy
- c- CLL
- d- 2ry polycythemia

e- Polycythemia rubra Vera

- 27-Pregnant women G4P3+1 on GA 10 wk came to you with IUCD inserted & the string is out from O.S what is the most important measure :

- a- leave the IUCD & give A.B
- b- leave the IUCD & send to Ob/ Gynaecologist to remove
- c- leave the IUCD
- d- do laparoscopy to see if there is ectopic preg.
- e- Reassurance the pt

- 28-17 year old male while play football felt on his knee "tern over " what do think the injury happened

- a- medial meniscus lig,
- b- Lateral meniscus lig.
- c- Medial collateral lig.
- d- Lat. collateral lig.
- e- Antr. Crussate lig.

- 29-For health education programme to be effective all true except :

-

- a- Human behaviour should be well understood.
 - b- Procedures used include illustration & picture.
 - c- Doctors should be the only educator.
 - d- Community member should be involved in early stage.
 - e-
-

- 30-Placenta previa excludes :

- a- Pain less vaginal bleeding
- b- Tone increased of uterus
- c- Lower segmental abnormality
- d- Early 3rd trimester

- 31-Pregnancy test +ve after :

a- one day post coital

b- 10 day after loss menstrual cycle ??

c- One wk after loss menstrual cycle

- 32-45 year old female complaining of itching in genitalia for certain period, a febrile, -ve PMH, living happily with here husband since 20 year ago on examination no abdominal tenderness , erythema on lower vagina , mild Gray discharge no hx of UTI .
pyelonephritis

Most probable diagnosis:

- a- Vaginitis
- b- Cystitis
- c- CA of vagina
- d- Urithritis (non gonococal)

- 33-20 year lady come to ER with Hx of Rt sever lower abdominal pain with Hx of amenorrhea for about 6 wk the most serious diagnosis of your deff. Diagnosis could reach by:

- a- CBC
- b- ESR
- c- U/S of the pelvis
- d- Plain X-ray
- e- Vaginal swab for C/S

- 34-Pt had arthritis in tow large joint & pansystolic murmur (carditis)

Hx of URTI the most important next step:

- a- ESR
- b- ASO titre
- c- Blood culture

- 35-35 years prime 16 wk gestation PMH coming for her 1st cheek up she is excited about her pregnancy no hx of any previous disease.

Her B/P after since rest 160/100 after one wk her B/P is 154/96

Most likely diagnosis :

- a- Pre eclampsia
- b- Chronic HTN
- c- Labile HTN
- d- Chronic HPT with superimposed pre eclampsia
- e- Transient HPT??

36- women complain of non fluctuating tender cyst for the vulva . came pain in coitus & walking , diagnosed Bartholin cyst . what is the treatment:

- a- incision & drainage
- b- refer to the surgery to excision (after you reassure her)
- c- reassure the patient
- d- give AB

37- 42 years old male presented with history of sudden appearance of rash – maculopapular rash – including the sole, & the palm, the most likely diagnosis is :

- a- syphilis
- b- erythema nodosum
- c- erythema marginatum
- d- pityriasis rosea
- e- drug induced

38- A mother calls you about her 8 years old son , known case of DM-1 fell comatose . she is not sure if he took the night 7 morning dose of insulin. You will advise her to :

- a- bring the child immediately to the ER
- b- call an ambulance
- c- give him IV glucagon
- d- give him IV insulin
- e- give him drink contains sugar

39- years old lady on , feels dizzy on standing, resolves after 10-15 minutes on sitting, decrease on standing, most likely she is having :

- a- orthostatic hypotension
- b-

40- what is the most appropriate treatment for the above patient :

- a- antiemetic
- b- antihistamine
- c- change the antidepressant to SSRI
- d- thiazide diuretics
- e- audiometry

41- 23 years old lady with one month history of nasal discharge & nasal obstruction, she complained of pain on the face, throbbing in nature , referred to the supraorbital area, worsen by head movement, walking, & stopping. On ----- examination , tender antrum with failure of transillumination (not clear), the most likely the diagnosis is:

- a- frontal sinusitis (we can NOT transilluminate it)
- b- maxillary sinusitis
- c- dental abscess
- d- chronic atrophic rhinitis
- e- chronic sinusitis

TAP can pass the peptide to bind with:

- a) MHC-I
- b) MHC-II
- c) None of above
- d) All above

CR .present in all expect:

- a) MQ
- b) Neutrophil
- c) RBC
- d) T-cell
- e) D.N

Colicins inhibit growth of:

- a) Normal flora
- b) Pathogenic bacteria

c) Non-pathogenic bacteria

d) All of the above

e) comment

MHCI peptide should be:

a) 8-11 a.a endogenous

b) 12-25 a.a endogenous

c) 12-25 a.a exogenous

Cytokines secreted from MC except :

a) IL-12

b) IL-13

c) IL-10

d) TNF- α

Resting B-cell express:

a) MHC-I

b) MHC-II

c) B7

d) A.B

e) B.C

Cystic fibrosis is characterized by hypertonic mucus which inhibits the:

a) cerropin

b) catharin

c) brevenin

d) collectin

PR-39 stimulates the formation of :

a) syndecan.

Which of the following receptors inhibit immunity:-

a) Vitronectin R.

b) CD14

c) TLR

d) B&C

e) A&C.

INF- γ is secreted from:

A) TCELL & N.K

B) T-CELL

C) B-CELL

CR1 expression:

a) RBC

b) MQ

c) NEUTROPHIL

d) D.N

e) ALL OF THE ABOVE

1- For health education programs to be successful all are true except :

a- human behavior must be well understood

b- Information should be from cultural background

c- Doctors are only the health educators

d- Methods include pictures and videos (mass media)

e- Involve society members at early stage

2- a 29 yrs. Old female has a breast lump in the upper outer quadrant of the left breast, firm, 2 cm. in size but no L.N involvement ... what is the most likely diagnosis ?

a- fibroadenoma

3- What is the management for the above patient?

a- mammogram (true if patient > 35 years)

b- excisional biopsy

c- FNA

d- breast US

e- follow up in 6 months

4- a 27 yrs. old female C/O abdominal pain initially periumbilical then moved to Rt. Lower quadrant ... she was C/O anorexia, nausea and vomiting as well ..
O/E : temp. 38°C, cough, tenderness in Rt lower quadrant but no rebound tenderness.

Investigations : slight elevation of WBC's otherwise insignificant ..

The best way of management is:

a- go to home and come after 24 hours

b- admission and observation

c- further lab investigations

d- start wide spectrum antibiotic

e- paracetamol

5- what is the most likely diagnosis for the above patient ?

- a- mesenteric lymph adenitis
- b- acute appendicitis
- c- peptic ulcer

6- a 24 yrs old pt. came for check up after a promiscuous relation 1 month ago .. he was clinically unremarkable, VDRL : 1/128 ... he was allergic 2 penicillin other line of management is :

- a- ampicillin
- b- amoxicillin
- c- trimethoprim
- d- doxycyclin

7- a 24 years old female pt. C/O : gray – greenish discharge , itching .. microscopic examination of discharge showed : flagellated organism ... most likely diagnosis is :

- a- trichomoniasis (trichomonas vaginalis)

8- a 43 yrs. old female pt. presented to ER with H/O : paralysis of both lower limbs and parasthesia in both upper limbs since 2 hours ago .. she was seen lying on stretcher & unable to move her lower limbs (neurologist was called but he couldn't relate her clinical findings 2 any medical disease !!!) when history was taken , she was beaten by her husband ... the most likely diagnosis is :

- a- complicated anxiety disorder
- b- somatization disorder
- c- conversion disorder
- d- psychogenic paralysis
- e- hypochondriasis

9- the best treatment for the previous case is :

- a- benzodiazepines
- b- phenothiazine
- c- monoamine oxidase inhibitor
- d- selective serotonin reuptake inhibitor
- e- supportive psychotherapy

10- a 58 yrs. old male pt. came with HX of fever, cough with purulent foul smelling sputum and CXR showed : fluid filled cavity ... the most likely diagnosis is :

- a- abscess
- b- TB
- c- bronchiectasis

11- a 28 yrs. old lady , C/O: chest pain, breathlessness and feeling that she'll die soon .. O/E : just slight tachycardia .. otherwise unremarkable .. the most likely diagnosis is:

- a- panic disorder

12- a patient (known case of DM) presented to u with diabetic foot (infection) the antibiotic combination is :
a- ciprofloxacin & metronidazole

13- a young pregnant lady (Primigravida) , 32 weeks of gestation came to you C/O : lower limbs swelling for two weeks duration .. she went to another hospital and she was prescribed (thiazide & loop diuretic) .. O/E : BP : 120/70 , mild edema , urine dipstick : -ve and otherwise normal.... The best action is :
a- continue thiazide & stop loop diuretic
b- cont. loop diuretic & stop thiazide
c- stop both
d- continue both and add potassium sparing diuretic
e- cont. both & add potassium supplement

14- a 17 yrs. old football player gave HX of Lt. knee giving off .. the most likely diagnosis is :

- a- Lat. Menisceal injury
- b- medial menisceal injury
- c- lateral collateral ligament
- d- medial collateral ligament
- e ant. Curciate ligament

15- a 10 yrs. old boy presented to clinic with 3 weeks HX of limping that worsen in the morning .. this suggests which of the following :

- a- septic arthritis
- b-leg calve parthes disease
- c- RA
- d- a tumor
- e- slipped capital femoral epiphysis

سئلة اختباري 2010-4-25

1-in the plain tube what will happen to the sample: clotting.

2-the unit of measurment of E.S.R: millimeter.

3-the HB which found in 96% is: alpha2 beta2.

4-the most common blood group is: O blood group.

5-the antibody of blood group is: antiA and B.

6-the antibody which found in normal individual is: antiA and B.

7-the count of leucocyte is:

4000-11000x10⁹ل

8-the color of anti sera A is: blue.

9-how we can differenite from gram(-)and gram (+) by: cell wall.

10-the color of gram (+) is: blue light.

11-the cell wall of gram(+) contain :

مع مادة ثانيه نسيت اسمها peptedo glycogen

12-pemenant defferal :

A-iron deffeciancy animea.

B-diarreha.

C-hepatitis C positive.انا اخترت ني

D-fever.

12-the immuonoglobulin which contain five chain in the heavy chain is:

A-IG g.

B-IG A. هذا الي انا اخترتو

C-IG D.

D-IG E.

هذي الاختيارات الي جاتني بالتحديد مافي igm ما جاني m عشان
ما تقولو اني اكذب او اني نسيت الاختيار

13-the foundmental of erythrocyte production is:

A-ERTHROPIOTEIN.

14-leucocyte increase incase:

A-BACTERIAL infection .

B-chemotherapy.

C-radiation.

D-ALL OF ABOVE.

E-NON OF ABOVE.

15-the triple granule which is the most abundant in leucocyte is: netrophil.

16-جاني اسم جهاز حق مايكرو يقلك وظيفتو في ل enrobactriace is:

A-genatic.

B-biochemecal وهذا الي انا اخترتو

C-immuno.

17-IN the serology section we use the following tube : plain tube.

18-which of the following will increase the calcium

concentration:

prolonged application of tourniquet.

19-ferritin measure:

iron deficiency anemia.

20-the following index sensitive and will measure the total of iron deficiency anemia:

A-TRANSFERRIN.

B-FERRITIN.

C-TIBC.

D-HB CONCENTRATION.

E-ALL OF ABOVE

21-TO DIFFERENTIATE BETWEEN hemophilia A and B: factor assay

22-the following related to immunoassay except: IMMUNORECIPENT.

23-heamophilus influenza cause:

N.meningitis in infant and children.

24-the following microorganism will not take the gram stain:

mycobacterium specius.

25-the following parasite will not take the gimsa stain:

A-lishmenai.

B-TRYPONOSOM.

C-الشيستوسوما □ انا اخترت B التريپانوسوما بس ماني متأكد

26-plasmodium will transfere by:

A-MOSIQUETE.

B-FLY.

C-ALL OF ABOVE

27-when the micro invade the body B-cell will secret and it will transfer to :

plasma cell.

28-B-plasma cell will immutire by :

thyroid gland انا اخترت ماني متأكد

29-T-lymphocyte will immutire by:

lymph node انا اخترت ماني متأكد

30-glycogene will formation in:

liver.

31-the perfect picture of acute leukemia:

والله جاتني اختيارات غريبه سامحوني نسيته

32-wucheria bancrofti will measure by :

blood and urine.

33-the infective stage of ankylostoma duodenal is:

pathogenic larva.

34-diagnostic stage of ascariasis is:

egg.

35-which of the following parasite will cause abscess in liver:

E.hostolytica . انا اخترتو بس ترو ماني متأكد

36-جبلي اسم نظريه بعدين مكتوب:turbidity sample

refraction of light هذا الي انا اخترتو جاتني اختيارات كثيره بس نسيته

37-حطط في السؤال لم وبعد الاسم كاتب مادة الفورمالين يقول انا

sediment stool because: احسن طريقة في ال

معليش والله ناسي الاختيارات بس متذكر وحده الي هي maintain the parasite

38-the agar of C.diphtheria:

A-Ss agar. انا اخترت ني

B-TCBS.

C-BLOOD MONITOR AGAR. بس واحد من الشبلي قلني

D-XLD

ترو ذي نفس الاختيارات الي جاتني واللى حلفتكم مو عشان تقولو تيكرو كذاب ولا واحد يجي يفلك لا باضيف اختيار من عندي

39-THE nutrient media is:

basic media.

40-the following tests we doing in emergency cases except:

A-electrolight.

B-GLUCOSE.

C-BLOOD GAS.

D-ALBUMIN. هذا الي انا اخترتو

41-anti diaurtic hormone will secret from posterior

pituitary gland: يعني كانوا يفلك اش وظيفة هذا الهرمون:

A-DECREASE urine volume . وهذا الي انا اخترتو

B-DECREASE SUGAR VOLUME.

باقي الاختيارات نسيته

42-reticulocyte normal range:

0.1-0.2%

43-the meninum of platelate storge :

5 days.

44-platelet will store at:

20-24

45-psudomonas is :

A-large mucoid amount . وهذا الي انا اخترتو

B-SMALL AMOUNT OF MUCOID.

باقي الاختيارات نسيته

46-N.gonorrhea:

A-GRAM (-)rods only.

B-OXIDASE (+)ONLY. انا اخترت ذا وشاكك انو تكون الي تحتها

الصح

C-GRAM (-)RODS AND OXIDASE (+)

باقي اختيار رابع نسيته

47-في السؤال ذا جبلي نوع من السديمونس بس نهايتها بحرف ال Z

سامحوني نسيته اسمها السؤال يقول

CHARACTER IS TRUE:

A-MOTILE-OXIDASE (+)-LACTOSE FERMENTER-GRAM(-)

RODS. وهذا الي انا اخترتو ماني متأكد

ياقي الاختيارات بس عكس

48-factor of erythropoiesis:

والله ناسي الاختيارات هذا الي انا متذكرو:

A-NEEDS FOLIC ACIDS AND VITB12.

B-STIMULUS IN CASE OF HYPOOXYGENEMIA. وعلى ما أعقد

هذا الي انا حطيتو

49-RETENTION OF URIC ACID:

KIDNEY.

50-estimation of acid in hereditary:

A-AMINO ACID.

B-FATTY. هذا الي انا اخترتو ماني متأكد

51-eneterococci can be differentiated from : هذا السؤال

عكس الي حطو دكتور ابو رشاد

A-S.AUREUS. وهذا الي انا اخترتو

B-STREPTO.

52-WILL CAUSE BURSE معليش نسيته السؤال كامل:

A-STAPH. وهذا الي انا اخترتو ماني متأكد

B-STREPTO.

53-THE proper result of indivial:

when the result be close to the normal value.

54-reliable method to measure the PH is:

A-PH meter. هذا الي انا اخترتو

B-LITMUS paper.

C-INDICATOR.

D-NON OF THE ABOVE.

55-CAUSIN OF WHOOPING CAUGH :

BORDETELLA PRUTISIS

هذا كل الي اتذكرتو وسامحوني اذا في تقصير بس في سؤال اخير افراد عصابتي يعرفو بحطو عشان يمكن يجيكم في اختبار الانضمام لعصابتي

WHICH OF THE FOLLOWING SOFT DRINK WILL GIVE THE GUT:

A- PEPSI.

B-7 UP.

C-7 DOWN.

D- DEW

الشاطر يقلي الاجابه

25-9-2012 اخلاقي مختبر

1- acute pancreatitis is BEST diagnosed by:

A-ALT

B-AST

C-Amylase

D-Lipase

2-Albinism is a lack in this enzyme:

A- carboxylase

B- tyrosinase

C-phenylalanine hydroxylase

3- hormone that stimulate secretion of free fatty acids is:

- A-estradiol
- B-GH
- C-ACTH

4-hormone responsible of women infertility:

- A-estradiol
- B-estrogen
- C-testosteron

5-in case of DM we must monitor:

- A- K
- B- Ca
- C- Na
- D- Mg

6-in neonatal meningitides with E.coli the BEST diagnosis is:

- A- vaginal swab of mother
- B-vaginal swab of neonate
- C- CSF swab of mother
- D- CSF swab of neonate

7- what is this pipette called:

8-صورة لـ blood agar والبكتيريا لونها اصفر وصورة ثنائية
للـ coagulase +ve المطلوب نوع البكتيريا والاكيد S.aureus

9- picture of trichomonas vaginalis

10-what is the Ag presentation:

- A-capture of Ag & then enable their recognition by T-cell

11-in compared with IgG, IgM is:

- A-bound to the cell surface of cancer cells
- B-less fixed complement
- C-response in repeated infection
- D-produced in African trypanosomiasis

12-all of the following can assayed by ELISA before donating blood EXCEPT:

- A-HIV
- B-HBV-Ag
- C-HCV

D-HAV

13-function of NK cells with T-cytotoxic is:

14- sickle cell anaemia trait is:

- A-recessive heterozygous
- B- recessive homozygous
- C- dominant heterozygous
- D- dominant homozygous

15-Rh antigens are:

- A- D, C, c, E, and e
- B- D, d, C, c, E and e
- C- d,C,c,E and e
- D- D,d,C,c and e

16-stool spp with dehydrated form appear solid because:

- A- neomeres eggs and little of trophozoites
- B- neomeres trophozoites and little of eggs
- C- neomeres trophozoites
- D-neomeres eggs

17-Calculate the molarity واعطاني الوزن والوزن الجزيئي طبعا
اقسمهم على بعض

18- in PCR sterilize all of these true except:

- A-PCR buffer
- B- dH₂O
- C- for glasses
- D-for Mg

19-PCR is used to produce :

- A- DNA
- B-RNA
- C-DNA and RNA
- D-All neoclutides

20- in PCR we must prevent contamination of:

- A- DNA

21-gram staining bacteria cause food poisoning

- A-gram +ve spore forming bacilli
- B-gram +ve non spore forming bacilli
- C-gram -ve capsulated diplococcus

22- in blood bag after incubation for 14 days which of the following not found :

A-RBCs

B- PLTs

ودي الاسئلة المكررة عن الاخت نيرمين جزاها الله خير مع تغيير في الاختيارات عندي

23-grow of salmonella on XLD agar

A- smooth with black center

B- yellow grow

24- 5 months baby, TWBCS 8.8×10^9 L/cell, segmented neutrophil 34, band 4, lymphocyte 57...

a-infectious mononucleosis

b-normal physiology for baby

25- mycoplasma and uremia:

a-without cell wall

b-without cell membrane

11-perforin mediate which function:

a-.....

b-.....

26-all of the following cause immediate haemolytic transfusion reaction except:

a-HCV

27-which factor cause pt prolong:

a-IX

b-XII

c-XI

d-VIII

28-in case myocardial infarction the useful enzymes:

a-LDH-GOT-CKP

أسئلة اختبار الهيئة لأخصائيين المختبر (تخصص تقنية مختبرات)

1- PCR: **(Polymerase Chain reaction)**

Micro organism arranged in group cluster :

2- **(G+Staphylococci)**

3- Anoxemia is : **(Absence of O₂ from arterial blood)**

4- Karyorrhexis is : **(Swelling of nucleic acid =Rupture of cell nuclear)**

5- Latency characteristic of : **(Herpes simplex virus)**

6- Biharizias : **(Cause lesion in submucosal)**

7- Leukoplakia : **presence of leukocyte (polymorphnuclear leukocyte)**

8- Adenovirus is : **(DNA virus duple strand)**

9- Antibody produced from : **(plasma cell)**

10- Gardia lambia associated with : **(Steatorrhea)**

11- Use of chemical on skin (hand) : **(Antisptic)**

12- Megaloplastic anima found in : **(Chronic bleeding)**

13- Found in children with pyuria that not specific and G+ve bacteria : **(Chlamydia trachoma)**

14- Green tap tube the heparin can use for : **(sugar analysis)**

15- DNA strand that : **(5 prim-3 prim)**

16- Jaundice on yellow skin and eye mean **(bilirubin is 3mg\dl)**

17- Which one of the following is not true about salmonella : **(Dose not produce H₂S)**

18- In electrophoresis we prepare : **(1g agarose in 100ml TAE)**

19- Diagnostic stage for strongyloides in stool : **(Larve)**

20- Plasmodium Falciparum transmted by **(Anopheles)**

21- Gentic information of bacteria is carried on : **(MRNA)**

22- Hormon used to prepare the uterus for pregnancy : **(Progesteron)**

23- Cause food poisoning with flaccid paralysis : **(Clostridium botulinin)**

24- Which of the following should go immediately to the lab: **(CSF)**

25- How many day dose the culture and AB test take : **(72 h)**

26- Short arm chromosome is : **(P arm) long(Q)**

27- Use of Taq DNA : **(PCR)**

28- Reading of band in pcr by : **(Eye)**

29- Degree of DNA denaturation is : **94 Alnaling 52-42 Extation 72**

30- Different between serum and plasma : **(plasma contain fibrinogen)**

31- Virus causes diarrhea in children (6m to 2y) characterized by : **(Non enveloped therefore stable in food and hard solid)**

32- Thin blood film staining by Wright stain is for : **(WBC count)**

33- TO differentiate between major sickle and minor : **(Electrophoresis)**

34- LDH used in : **(In many clinical chemistry test)**

35- Familial hypercholesterolemia is present in **(1:500)**

36- Best diagnosis of typhoid fever in 1 week is **(Blood culture) 2 week (stool culture)**

37- E.Coli: **(motile aerogenic K/A g+ H₂S -- ++)**

38- Non motile gram -ve bacteria: **(Klebsellia ++ --)**

39- Micro organism exhibits -ve bacteria : **(Red stain)**

40- Group A streptococcus : **(B hemolytic clear zone)**

41- Increase target cell : **(Thalassemia -Hbc -Iron deficiency a.)**

42- Gram -ve N/F causes blood diarrhoea in children is **(Shigellosis)**

43- What antibiotic gives B-lactamase resistance : **(Vancomycin)**

44- Virus causes nasopharyngeal carcinoma is **(EBV)**

45- HBV ,HCV ,HAV Transmitted by **(parental)**

46- NO of neutrophils and epithelial in lower respiratory infection : **(Neutrophils more than 25 Epithelial less than 10)**

47- Patient with little amount of bleeding and repeatedly : **(normocyte normochromic)**

48- Actinomycetosis disease is in **(Skin)**

49- ATG : **(Alanine)**

50- Most sample used in biochemistry is **(Serum)**

51- Media which add some substance like salt and antibiotic : **(Selective media)**

52 End product of glucose anaerobic pathway : **(Lactate)**

53- Competitive enzyme to acetyl CoA is (**Propionyl CoA**)

54- Specific test for Syphilis is :(**TPHA**)

55- Smallest RNA virus :(**Picornavirus**)

56- Burkitt lymphoma for :(**EBV**)

57- High AST seen in :(**viral hepatitis**)

58- Most human infection come from :(**gp A-B Streptococci**)

59- Ab cause HDN :(**Anti D**)

60- Quellung test used for all except :(**C. diphtheriae**)

61- Blood sample taken in all except : (**Enteritis-Gastroenteritis**)

62- ASOT done in : (**Rheumatic fever –Acute glomerulonephritis**)

63- The first copy of PCR is :(**4**)

64- mRNA to cDNA by :(**RT-PCR**)

65- PCR use for : (**Nucleic acid analysis**)

66- RSV : (**Bronchitis in young children**)

67- HIV stage of AIDS diseases lymphocytosis reduce to: (**200**)

68- Difference between artery and capillary : (**Thickness**)

69- Salmonella serotype : (**O 9.12- H 1.2**)

70- In stool culture the organism is : (**Salmonella**)

71- Media of Bordetella (Whooping cough) is : (**Blood with ceftriaxone (Ab CCBA)**)

72- Herpes virus recover : (**Spinal fluid ,Saliva, Skin**)

73- Neonatal Toxoplasma diagnosis by : (**Serology**)

74- Cassan reaction used in : (**Hypersensitivity**) (Hydatid disease)

75- If the SP. Is vary large in PCR : (**not affected**)

76- CSF in TB meningitis : (**lymph increase and glucose decrease**)

77- Proteus Vulgaris different from P.M :(**Indol +ve and Ornithine**)

78- Lipid sample : (**presence of Triglycerid**)

79- Cytopathic effect of virus to cell :(**Shrinking .Vaculation .Lysis. Syncytic**)

80- Macc used to differentiate : (**-ve rods**)

81- N-gonorrhea diagnosed by : (**Theyer martin culture**)

82- Kidney membrane show irregular in : (**Chronic glomerulonephritis**)

83- Thrombus come in :(**Vein**)

84- Chromosome abnormalities diagnostic by :(**FISH- CGS- PCR**)

85- HCV-HBV diagnosis by(**ELISA. SPRIA, RPHA**)

86- Pre basal cell not found in (**Woman age 60 y**)

87- Micro organism resistance of penicillin because (**B-Lactamase**)

88- Sickle cell anemia in KSA distributed in (**South**)

89- E.Coli in clade (**Yellow to orange**)

90- ESR elevated in all except (**Polythemia vera**)

91- Viral infection increase :(**Lymphocytosis**)

92- PT prolong defecated of :(**F2**)

93- Organism skin lesions +ve brines : (**Actinomyces**)

94- Chronic myeloid leukemia not found :(**high platelets**)

95- Error of G stain effect :(**Dicolorization by alcohol**)

96- Trisomy 21 : (**KFILLER syndrome**)

97- Agarose gel stain by :(**Golden**)

98- One of this virus can die during transport to lab :(**Synovial virus**)

99- Duodenal aspiration find in :(**Gardia**)

100- In two fold elevation the :(**IG titer very high**)

101- Epstein virus :(**DNA virus**)

102- Polio virus and Influenza virus :(**RNA**)

103- Synthetic virus cause :(**Upper respiratory infection**)

104- Salmonella and Citrobacter can be differentiated: (**ONPG test**)

105- Acute pancreatitis increase in :(**Serum amylase**)

106- Campylobacter :(**-ve cocci**)

107- Listeria monocytogenes is :(**+ve Rod**)

108- Difference between staph. aureus and other staph. : (**Coagulase test**)

109- Which of the following organism can be isolated from CSF (**TB**)

110- Malaria is best diagnosis by (**Blood film**)

111- Oxides +ve organism is (**Pseudomonse**)

112- Shiglla sp. In XID media is :(**Pink color**)

113- Neisseria sp is (**_ve diplococci**)

114- Different ion strepto. Pygone and other strepto.: (**Bactricin sensitive**)

115- Hemophilia A deficiency in :(**factor 8**)

116- Diagnosis of multiple myeloma by :(**Bone marrow aspiration**)

117- In cross matching we use :(**Donor cell + Patient serum**)

118- Nucleated cell RBC are seen :(**Thalathamia major**)

119- B-lactan ring found in (**Penicillin**)

120- Blood cast can be found in :(**Acute glomolonepheties**)

121- Which following cause subcutaneous disease (**Actinomysese**)

122- Indian Ink used in (**capsules demonstration**)

123- Crystal violet used in the media as (**Inhibitor**)

124- LAP is low in (**CML AML**)

125- To fix smear of pleural and Asiatic fluid use (**95% ethanol**)

126- Cryptococcus is associated with (**HIV patient**)

127- Common tumor in intestine found in (**Descending part**)

128- Normal flora in sort all except (**Streptococcus**)

129- Cancer sprat when (**Needle penetrate the center of tumor**)

130- Connective tissue is composed of (**Loosely collagen fiber**)

131- Connective tissue produce bone is called (**Osteoblastic cell**)

132- Which wrong about campylobacter jejumi (**Grow in XID**)

133- G6PD is (**Hexso mono phosphate path way=HMP**)

134- For anion gap in urine (**measure Na K Cl**) for serum (**Na Cl Hco3**)

135- TIBC is inversely proportion with (**Iron level**)

136- Indol consist of (**Alkaline peptone water**) (**enriched media for V. Cholera**)

137- Substance used in indol test (**Tryptophan**)

138- Band in electrophoresis measure by (**electrophoresis marker ladder**)

139- Megaloblastic anemia seen in (**B12 deficiency**)

140- Carcinoma common in (**R-Colon**)

141- Anticoagulant not used in blood bank (**Heparin**)

142- MCV :Mean cell value =PCV\L *10/RBC (**FL**)

143- MCH =HB g/dl *10/RBC (**Pg**)

144- MCHC = HB g/dl *100/PCV (**%**)

145- Carcinoma in respiratory system associated with (**CMV**)

146- Decreased of megakaryocytic in (**Thrombocytopenia**)

147- Worm difficult seen in stool (**Hydatia cyst**)

148- Family hypercholesterolemia due to defect in (**LDLR gene = defect in chromosome 19**)

149- Polynephritis caused by (**E.Coli**)

150- Lance filed used to (**Streptococcus gp according to type of polysaccharide in its cell wall**)

151- Hydrolysis of starch in intestine (**Maltose**)

152- Time to grow aerobic bacteria is (**24 h**)

153- Diffraction between staph and strepto is (**Catalase**)

154- Cell secreted mucus in stomach is (**Goblet cell**)

155- Part of body contain lymphocytic germinate center (**Lymph node**)

156- Percent of wrong in DNA extraction (**15%**)

157- Plasma cell from (**B cell**)

158- Good method to take sputum sample (**3 morning sample for 3 day successively**)

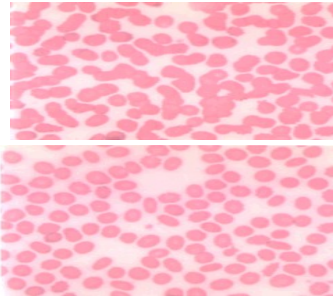
159- Cause of cresentation necrotic (**bacterial action**)

160- Cause of hypoxia injury (**enter water inside the cell**)

1. Which of the following blood smears these illustrations would be best suited for performing a differential count:

Top Photo

Bottom
Photo



Feedback

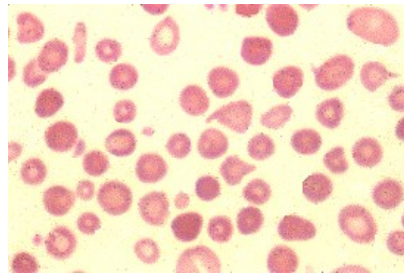
An even distribution of red blood cells on a smear is necessary for accurate differential counts.

2. Choose the term that describes the most prominent finding in this peripheral smear:

Rouleaux

Normal
RBCs

Anisocytosis



Feedback

Anisocytosis is a variation in the size of the red blood cells. This slide shows poikilocytosis, but anisocytosis is more prominent here.

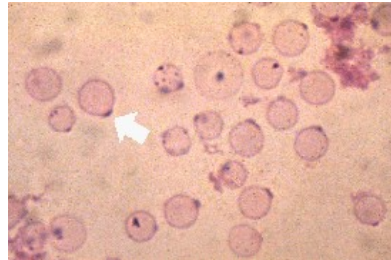
3. The intracellular precipitates seen in the RBCs in this illustration is termed:

Dohle bodies

Heinz bodies

May-Hegglin
anomaly

Reticulocytes



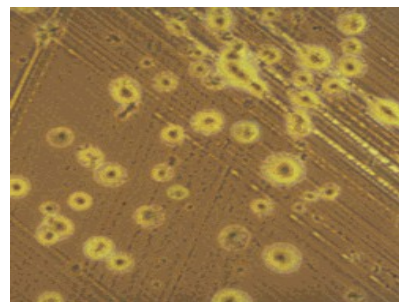
Feedback

Heinz bodies occur as the result of denaturation and precipitation of hemoglobin, and are often attached to the red cell membrane. They require staining with crystal violet or methyl violet to be visible. They may be seen in thalassemia, with unstable hemoglobins, or during a hemolytic episode in G6PD deficiency.

4. The growth seen here on PPLO agar is most likely caused by:

Streptococcus
pneumoniae

Klebsiella pneumoniae



Mycobacterium

Mycoplasma

Feedback

PPLO agar is used for the isolation and cultivation of *Mycoplasma* species.

5. A definitive diagnosis of malaria can be made by:

Serological testing

Culture techniques

Demonstration of the organisms in peripheral blood

Biochemical reactions



Feedback

Diagnosis of malaria may require thick smears as well as conventional thin blood smears.

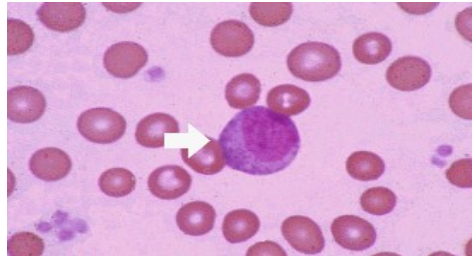
6. Identify the cell in this illustration indicated by the arrow:

Myelocyte

Monocyte

Metamyelocyte

Lymphocyte



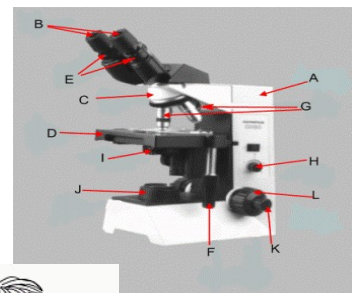
7. Identify the Revolving nosepiece and Mechanical stage

K, L

C,
D

F, G

A, B

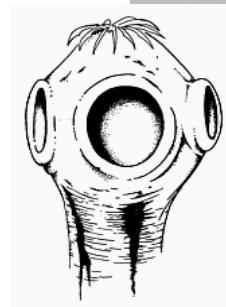


8. I may be found in stool.

Taenia saginata scolex

Diphyllobothrium latum scolex

Taenia solium scolex



Echinococcus granulosus
scolex

Feedback

The scolex of *Taenia solium* may be distinguished from the other cestode scolices by its four distinct suckers and the presence of a rostellum armed with hooklets.

9. Based on the phenotype of the RBC screening cells, and patient results given below, which of the following antibodies cannot be ruled out:

Anti-C

Anti-Jka

Anti-M

Anti-Fya

Screening Cells														
	Rh-ir			Kell		Duffy		Kidd		Lewis		MNS		
Cell	D	C	E	c	e	K	k	Fy ^a	Fy ^b	Jk ^a	Jk ^b	Le ^a	Le ^b	P
I	+	0	+	+	0	+	+	0	+	+	0	+	+	+
II	0	+	0	+	0	0	+	0	+	+	0	0	+	+

Patient Serum				
Cell	Immediate Spin	37° C	AHG	Coombs Control
I	Neg	Neg	1+	
II	Neg	Neg	Neg	2+

Feedback

It is only possible to rule out on screening cell 2 since it demonstrates a negative reaction with the patient serum. Anti-C cannot be ruled out since the antigen is heterozygous on screening cell 2. Anti-Fy^a cannot be ruled out since this antigen is not present on screening cell 2. Anti-M and anti-Jk^a can be ruled out since the antigens are homozygous while demonstrating a negative reaction on screening cell 2.

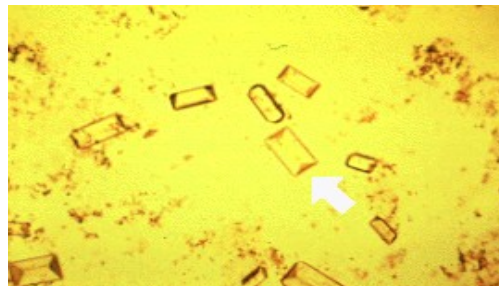
10. Identify the urine sediment elements indicated by the arrow in the illustration:

Cholesterol crystals

Triple phosphate crystals

Amorphous urate crystals

Ammonium biurate crystals



Feedback

Triple phosphate crystals appear as colorless prisms with 3 to 6 sides and oblique ends, or as "feathery sleeves". They have been described as "coffin lid shaped", and can occur normally in alkaline urine. They may indicate the presence of an infection.

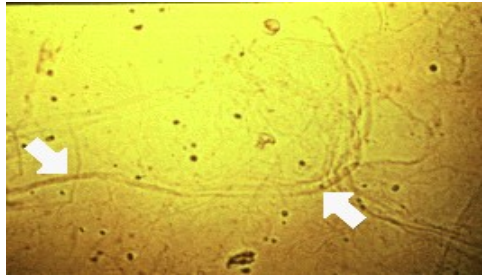
11. Identify the urine sediment elements shown by the arrow:

Cylindroids

Mucus threads

Hyaline casts

Budding yeast



Feedback

Mucus thread appear as long, thin ribbon like threads that are generally transparent. They are normal in small numbers in the urine.

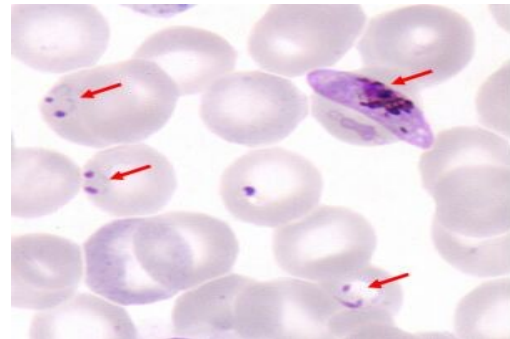
12. This suspicious form was recovered in blood.

Plasmodium vivax ring form

Plasmodium malariae band form

Plasmodium falciparum ring form

Pseudoparasite



Feedback

Plasmodium falciparum ring forms often resemble a walkman headset by containing two chromatin dots instead of one, as commonly seen in the other Plasmodium species. These dots serve as connecting points for the ring of cytoplasm.

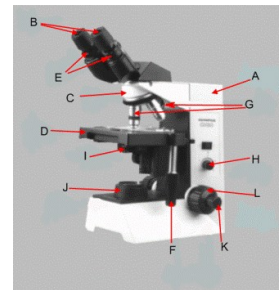
13. Identify the Eye piece and Binocular (observation tube):

B, E

G,
D

A, K

J, F



14. The elements indicated by the arrows are more likely to be seen in patients with which condition:

Bacterial infection

Nephrotic syndrome

Diabetes

Renal failure



Feedback

Yeast cells as a cause of infection are more commonly found in patients with diabetes mellitus, but can also represent contaminants with no clinical significance. They should not be confused with erythrocytes. The presence of budding helps with the identification.

15. Identify the cell in this illustration indicated by the arrow:

Eosinophi

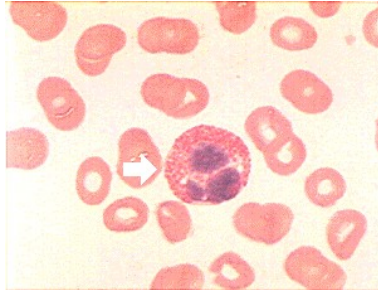
|

Monocyte

Basophil

Neutrophil

|



Feedback

Eosinophils have characteristic large prominent orange granules.

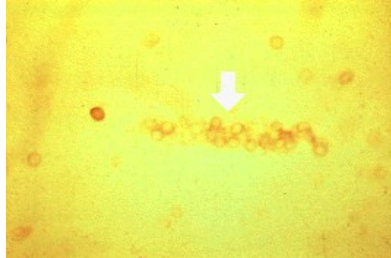
16. What type of cast is shown in the illustration:

WBC casts

RBC casts

Waxy casts

Granular casts



Feedback

RBC casts may appear as brown to almost colorless. Red cells can clearly be seen within the cast. This type of cast is diagnostic of glomerular disease or intrarenal bleeding.

17. This suspicious form was found in stool.

Pseudoparasite

Hookworm rhabditiform larva

Strongyloides rhabditiform larva

Strongyloides filariform larva

Feedback

Although this suspicious form resembles an intestinal nematode larva, internal structures necessary for it to function as well as to identify it as a parasite are lacking. Numerous such pseudoparasites may be present in stool samples.

18. This suspicious form was found in stool.

Pseudoparasite

Hookworm rhabditiform larva
Strongyloides rhabditiform larva
Strongyloides filariform larva



Feedback

Although this suspicious form resembles an intestinal nematode larva, internal structures necessary for it to function as well as to identify it as a parasite are lacking. Numerous such pseudoparasites may be present in stool samples.

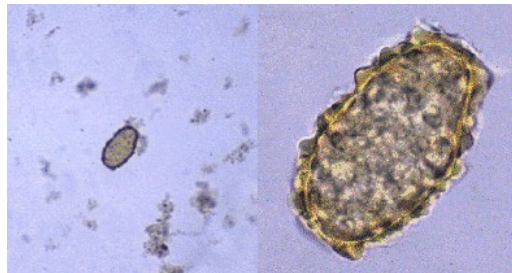
19. The most likely organism to be cultured on the Lowenstein-Jensen agar slant illustrated here would be:

Cryptococcus
Chlamydia
Mycobacteria
Listeria



20. This suspicious form, shown below at both low (10X) and high dry (40X) power, measures 90 micro meters by 42 micro meters. It was seen in a stool sample.

Hookworm egg
Pseudoparasite
Ascaris lumbricoides egg
Diphyllobothrium latum egg



Feedback

The mature eggs of Ascaris lumbricoides are readily visible at both 10X and 40X dry. The organism size as well as the presence of an outer albuminous coating help to identify the egg.

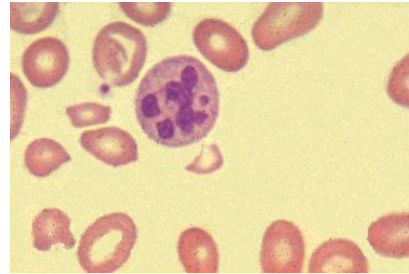
21. Which of the following conditions is frequently associated with these cells?

Hemolytic anemia

Chronic blood loss

Megaloblastic anemia

Sickle cell anemia



Feedback

Hypersegmented neutrophils are associated with megaloblastic anemias.

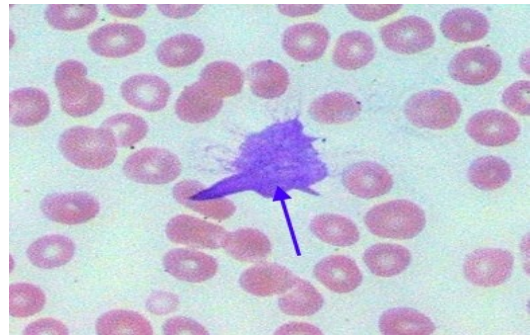
22. The cell indicated by the arrow in this illustration is called:

Hair cell

Smudge cell

Megakaryocyte

Blast



Feedback

Smudge Cells (bare nuclei) are commonly seen in blood smears from patients with chronic lymphocytic leukemia.

23. Identify the urine sediment elements shown by the arrow:

Cholesterol crystals

Uric acid crystals

Amorphous urate
crystals

Cystine crystals



Feedback

Cystine crystals are characteristically seen as colorless hexagonal plates in acid urine. They may be confused with hexagonal uric acid crystals. They can be differentiated from uric acid by their solubility in dilute hydrochloric acid versus crystalline uric acid, which is not soluble in dilute hydrochloric acid. The cyanide-nitroprusside test can be used to confirm the presence of cystine in urine. Cystine crystals are not present in normal urine.

24. Identify the urine sediment elements shown by the arrow:

Yeast

WBCs

Fat

Starch
crystals



Feedback

Starch crystals often contaminate normal urine. They appear round to oval, are highly refractile, with an irregular indentation in the center. They may exhibit the "Maltese cross" appearance under polarized light.

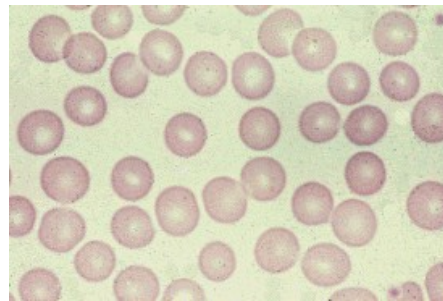
25. The RBCs seen in this illustration are indicative of:

Normal cells

Microcytic cells

Macrocytic cells

Hypochromic
cells



Feedback

Normal red cells are uniformly shaped and sized with 2-3mm of central pallor.

26. The McFarland Comparison Card shown in the illustration is used to:

Perform sensitivity testing

Standardize concentrations of
organisms

Q.C. broth media

Determine MICs



27. The WBC indicated by the arrow in this illustration is exhibiting:

Dohle bodies

Hypersegmentation

Degranulation

Pelger-Huet



anomaly

Feedback

Pelger-Huet anomaly is an autosomal dominant condition characterized by hyposegmentation of neutrophils. Decreased nuclear segmentation may also be seen as an acquired disorder in cases of granulocytic leukemia, myeloproliferative disorders, infections, and after exposure to certain drugs.

Image courtesy and copyright of the Clinical Chemistry and Hematology Laboratory, Wadsworth Center, NY State Department of Health (<http://www.wadsworth.org>)

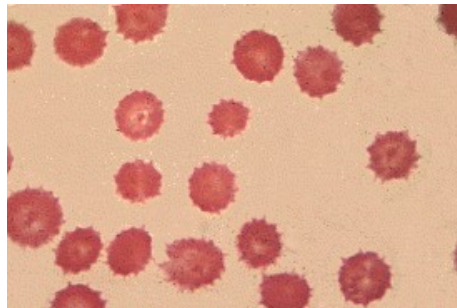
28. The abnormal RBC shape seen in this illustration is:

Sickle cell

Thorn cell

Fragmented
cell

Crenated cell



Feedback

Crenated red cells usually occur as an artifact during the preparation of blood smears.

Acknowledgement

I m thank full to my God he give me

And also I thank full my friend Mr. Sami Khan he help me in down load, Thanks,

Muhammad Younis

Lab. Technician

NNP, Rabigh, KSA

00966-591-342865

Unis_memon85@yahoo.com

1. Which of the following is a confirmatory test for syphilis:

RPR

FTA-ABS

VDRL

Wasserman
Test

Feedback

The FTA-ABS is not intended for use as a screening test. It should only be used to differentiate between true positives, false positives, and in late or latent syphilis.

2. The most likely cause of an elevated potassium level in an apparently normal individual is:

Contamination

Hemolysis

Acute renal failure

Interfering
substances

Feedback

Hemolysis could result from improper specimen collection technique, or improper storage.

3. Metabolic acidosis is characterized by:

Increased pCO₂

Hypoventilation

Low pH

High pH

Feedback

Metabolic acidosis is the result of either: 1) accumulation of abnormal levels of organic acids, often secondary to diabetic ketoacidosis, or lactic acidosis, 2) excessive loss of bicarbonate as in severe diarrhea, or 3) reduced excretion of acids as in renal failure. All these conditions result in a decrease in pH. The body compensates by hyperventilating, and lowering pCO₂, in an attempt to restore normal pH, resulting in a compensated or partially compensated metabolic acidosis.

4. The Quelling test is useful for which of the following :

Differentiate between Staphylococcus and Streptococcus

Serological typing of Streptococcus pneumoniae

Isolation of various strains of Staphylococcus

Isolation of various strains of Streptococcus

Feedback

Capsular swelling results from the addition of specific capsular antibody to an isolate of the organism. This test is generally not required for routine diagnosis.

5. The relative centrifugal force of a centrifuge may be affected by all except the following:

Time

Radius of
head
RPM

Feedback

The amount of time a sample is spun does not affect the relative centrifugal force

6. Standard precautions means that:

Known infectious patients must be handled with extraordinary care

Mask, gloves and gowns should be worn in all hospital patient's rooms

All specimens must be handled as if they are hazardous and infectious

Always wash your hands before drawing a patient's blood sample

7. RDW is an indication of which of the following:

Variability of RBC volume

Poikilocytosis

Macrocytosis

Microcytosis

Feedback

Red Cell Distribution Width (RDW) is a mathematical expression of size variation used to quantify anisocytosis. The higher the RDW, the greater the anisocytosis. RDW is increased in iron deficiency, and tends to be normal in thalassemia. Increased RDW may be an early indication of iron deficiency, where it may precede the onset of microcytosis.

8. Group A beta-hemolytic streptococci are best characterized by which of the following:

Positive cAMP test

Optochin sensitivity

Bile esculin-
hydrolysis

Bacitracin sensitivity

Feedback

Group B streptococci are characterized by a positive cAMP test. Streptococcus pneumoniae is characterized by Optochin susceptibility Enterococci are positive by the bile-esculin test.

9. The turbidity of the bacterial inoculum of a standard disc diffusion (Kirby-Bauer) susceptibility test is:

0.1 McFarland
Standard

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0.5 McFarland
Standard

1.0 McFarland
Standard

2.0 McFarland
Standard

10. Which of the following is not a common support medium used in electrophoresis techniques:

Cellulose acetate

Agarose gel

Polyacrylamide
gel

Dextrose

Feedback

Cellulose acetate and agarose gels are most commonly used in the clinical laboratory

11. The normal range for urine pH is:

4.6 to 8.0

5.0 to 6.0

7.0 to 8.0

none of the above

12. Which of the following is not a likely cause of an abnormal thrombin time (TT):

Fibrin split
products

Heparin

Aspirin

Dysfibrinogenemi
a

Feedback

The thrombin time is performed by adding thrombin to citrated plasma. It is prolonged by heparin, a deficiency or abnormality of fibrinogen and the presence of fibrin split products. Aspirin affects primarily platelet function.

13. What is the eight hour occupational exposure limit for a chemical called?

Threshold limit
value

Threshold time
limit

Time limit value

Short term limit

14. Spherocytes are associated with which two of the following conditions:

Hereditary spherocytosis

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Autoimmune hemolytic anemia

Thalassemia

Iron deficiency

Feedback

Spherocytes result from removal of small amounts of erythrocyte membrane, with resultant reduction in surface to volume ratio. This may occur in the reticuloendothelial system, as in hereditary spherocytosis and autoimmune hemolytic anemia, or may be due to direct injury of red cells, as in patients with severe burns.

15. The generally accepted age range for homologous blood donation is:

21 - 65 years

17 - 65 years

15 - 65 years

Over the age of 14 years

Feedback

Prospective donors over 65 may be accepted at the discretion of the blood bank physician. Many donor centers safely involve elderly donors in their collection programs.

16. Which of the following organisms is most frequently associated with endocarditis:

Viruses

Neisseria

Staphylococci

Streptococci

Feedback

Various Streptococci are the most common causes of endocarditis, although many other organisms have been implicated.

17. Ionized calcium is most commonly measured using which of the following method:

Flame photometry

Color complex formation between calcium and o-cresolphthalein

Atomic absorption

Calcium ion selective electrodes

18. Match the clotting factor with its commonly associated name:

Factor II Prothrombin

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Factor I Fibrinogen

Factor V Proaccelerinin

19. The prozone effect (when performing a screening titer) is most likely to result in:

False positive

False negative

No reaction at all

Mixed field
reaction

Feedback

Prozone effect (due to antibody excess) will result in an initial false negative in spite of the large amount of antibody in the serum, followed by a positive result as the specimen is diluted.

20. Which of the following tests on amniotic fluid would be included when assessing fetal maturity:

Alpha fetoprotein and
bilirubin

L/S ratio and bilirubin

Alpha fetoprotein and L/S
ratio

Creatinine and L/S ratio

21. Therapeutic hemapheresis may be used to treat all of the following except:

Acute Guillian-Barre
syndrome

Paraproteinemia

HIV infections

Cryoglobulinemia

Feedback

Therapeutic Hemapheresis is the process of removing a harmful blood component, and returned the remaining blood components to the patient. The examples sited above are indications for plasmapheresis, in which plasma containing a harmful substance is removed from the body, and replaced with FFP or other volume expanders, depending on the patient's condition.

22. A smear that is prepared from equal parts of methylene blue and whole blood will be used for:

WBC differential

Platelet estimates, RBC
count

Reticulocyte count

Feedback

Remaining nuclear fragments found in reticulocytes take up the methylene blue dye.

23. Gram positive organisms

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resist acetone-alcohol decolorization

are always decolorized by acetone-alcohol

resist staining by crystal violet

readily stain with safranin in the Gram stain

Feedback

Gram positive organisms resist decolorization with acetone-alcohol. Gram negative organisms are decolorized, and subsequently stain with safranin.

24. Which of the following are not appropriate indications for the use of fresh frozen plasma:

Volume expansion

Severe bleeding in the presence of significantly elevated PT secondary to vitamin K deficiency

Replacement component after plasma exchange in patients with TTP or HUS

Dilutional coagulopathy with significant active bleeding, and PT and PTT twice normal

Feedback

Since each unit of fresh frozen plasma (FFP) carries with it the risk of transmitting blood borne pathogens, and other products which do not carry this risk are available, FFP should not be used as a volume expander.

25. If a pipette is labeled (TC) " to contain " you would do the following:

Drain pipette, but not blow out

Drain contents then blow out or rinse

Drain to last mark on pipette

Do not consider the meniscus when filling

Feedback

"TC" means the total volume contained in the pipette - you must blow out to remove total contents.

26. The concentration of sodium chloride in an isotonic solution is :

8.5 %

0.85 %

0.08 %

1

molar

Feedback

Isotonic or normal saline is a 0.85 % solution of sodium chloride in water.

27. The positive square root of the variance of a set of values is called:

Median value

Mean value

Standard deviation

Coefficient of
variation

28. Patients with antibody to the following antigen are immune to Hepatitis B:

Core antigen

Surface
antigen

e antigen

Delta antigen

29. Which one of the following is not a true statement about Chlamydia:

Requires tissue culture for
growth

Is a true bacterium

Is an obligate intracellular
parasite

Has the nuclear structure of a
virus

30. Which of the following species are gram positive:

Streptococcus

Neisseria

Listeria

Lactobacillus

31. Which of the following media is commonly used when performing the Kirby-Bauer disk
diffusion

Chocolate agar

Mueller-Hinton
agar

Thayer-Martin
agar

MacConkey agar

32. Which of the following best defines "sensitivity":

The percentage of patients with a disease who will have a positive test

The percentage of patients without a disease who will have a negative
test

The percentage of patients with a disease who will have a negative test

The percentage of patients without a disease who will have a positive
test

Feedback

Sensitivity refers to the percentage or fraction of patients with a given disease in a given
population who will have a positive test.

33. What percentage solution of sodium hypochlorite (bleach) is recommended as a routine

laboratory disinfectant:

5 %

10
%

15
%

20
%

34. In HDN which of the following antigen-antibody reactions is occurring:

Maternal antibody against fetal
antibody

Maternal antigen against fetal antibody

Maternal antibody against fetal antigen

Maternal antigen against fetal antigen

35. Carbon dioxide is predominately found in blood in the form of:

Bound CO₂

Bicarbonate ions

Sodium
carbonate

Pco₂

36. What condition is indicated by the following blood gas results: Bicarbonate = 32 mmol/L (Normal = 22 - 26 mmol/L); pCO₂ = 65 mm Hg (Normal = 35 - 45 mmHg); pH = 7.28 (normal = 7.35 - 7.45)

Healthy condition

Uncompensated metabolic
acidosis

Compensated metabolic acidosis

Uncompensated respiratory
acidosis

Feedback

The normal pH of blood is 7.40. In order for most metabolic processes to take place, the pH must remain within a narrow range close to this value. The range is usually defined in adults as 7.35-7.45. If blood pH falls below 7.35, the blood becomes too acidic (acidosis). If blood rises above 7.45, the blood is too alkaline (alkalosis).

As blood pH decreases, the kidneys will retain bicarbonate (HCO₃⁻) from the glomerular filtrate; therefore, bicarbonate is increased. However, in this case, the increased HCO₃⁻ could not compensate for the markedly elevated pCO₂ (the respiratory component) and the condition that results is uncompensated respiratory acidosis.

37. In a normal CSF the protein concentration as compared to that in the serum is generally:

Less than
50%

Less than
30%

Less than
10%

Less than

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1%

Feedback

Normal ratio of serum to CSF Protein is about 200 to 1, or less than 1%. Elevation of CSF total protein is a nonspecific finding, but usually indicates some type of disease involving the brain or meninges.

38. Match the type of hepatitis with its route of transmission

Fecal and Oral	Hepatitis A
Parenteral	Hepatitis B
Parenteral	Hepatitis C

Feedback

Hepatitis A is spread through the fecal-oral route. Hepatitis B is most commonly spread through parenteral means, but nonparenteral routes such as transmission through pregnancy, sexual contact, and exposure to infected body fluids are also important. Hepatitis C is spread through parenteral routes; pregnancy, sexual contact, and in households is possible, but much less likely than with hepatitis B.

39. Which of the following staining methods would you use to demonstrate the metachromatic granules of *Corynebacterium diphtheriae*:

Acid fast
Gram
Trichrome

Methylene blue

Feedback

Methylene blue stain can be used to visualize the metachromatic granules that are characteristic of *C. diphtheriae*.

40. Which of the following are not considered normal flora of the gastrointestinal tract:

Lactobacillus
Clostridium
Peptostreptococcus

Shigella

Feedback

Shigella and Salmonella are not found as normal flora in the gastrointestinal tract.

41. All of the following cellular antigens are important to an immunohematologist except:

Blood group antigens

Histocompatibility
antigens

Haptens

Autoantigens

Feedback

A hapten is an incomplete antigen.

42. Which one of the following statements about anti-A₁ is false:

Anti-A₁ is a naturally occurring antibody that is usually clinically insignificant

Anti-A₁ reactive at 37° C can sometimes destroy transfused A₁ positive cells

A₁ and A₂ occur in 80 and 20 percent of the population, respectively

A₂ cells react with *Dolichos biflorus* lectin

Feedback

Dolichos biflorus lectin has anti-A₁ specificity.

43. Which one of the following organisms do not usually stain with an acid-fast stain, or one of its variants:

Mycobacterium

Cryptosporidium

Actinomyces
israelii

Nocardia

44. Which of the following would be the most appropriate temperature for long term storage of viral cultures:

4° C

-20° C,

-70° C

Room
temperature

Feedback

Cultures can be stored at either -20° or -70°, but -70° is preferred for long term storage.

45. Which of the following would be the most appropriate method to confirm a positive protein from a urine dipstick:

Immunoelectrophoresis

Heat precipitation

Sulfosalicylic acid

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precipitation

Protein electrophoresis

46. Circulating organic iodine is found primarily in the form of:

Triiodothyronine

Parathyroid
hormone

Thyroglobulin

Thyroxine

Feedback

Iodine circulates as thyroxine (T4) and to and to a lesser extent as Triiodothyronine (T3).

47. Which of the following conditions would be suggested by a marked rise in alkaline phosphatase, jaundice, and a moderate rise in ALT:

Cardiovascular disease

Hemolytic anemia

Post-hepatic
obstruction

Renal failure

Feedback

Post-hepatic obstruction is characterized by a marked increase in conjugated bilirubin.

48. Which of the following organisms is the most common cause of acute cystitis:

Escherichia coli

Klebsiella pneumoniae

Chlamydia trachomatis

Staphylococcus
epidermidis

49. A fluorometer operates on which of the following principles:

Measures amount of light absorbed by a given compound

Measures changes in emitted wavelength of light after absorption by an
analyte

Measures amount of light scattered by the analyte in question

Measures light emitted at two or more wavelengths

50. Which of the following statement about synovial fluid is true:

Markedly elevated neutrophils always correspond to bacterial joint infection

Patients with gout involving joints will have markedly elevated neutrophils in their
synovial fluid

Fungal joint infections have synovial fluid with numerous lymphocytes

Tuberculous joint infections have synovial fluid with numerous plasma cells

51. Rheumatoid factor reacts with which the following :

Fc fragment of IgM

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Fab fragment of
IgM

Fab fragment of
IgG

Fc fragment of IgG

52. Gamma irradiation of cellular blood components is required in which of the following situations:

Prevent post-transfusion purpura

Prevent Graft-Versus-Host (GVH) disease

Sterile components

Prevent non-cardiogenic pulmonary
edema

Feedback

Transfusion related Graft-Versus-Host disease is a rare condition usually following transfusion of patients whose immune system is severely compromised. It occurs when T lymphocytes present in the transfused unit replicate and attack the tissues of the recipient. Gamma irradiation prevents this condition by inactivating T lymphocytes in the donor unit. Gamma irradiation of cellular blood components is required when: 1. The donor is a blood relative of the recipient, 2. intrauterine transfusions, 3. The recipient has a selected immunodeficiency condition, 4. The recipient has received a bone marrow transplant.

53. Patients with which of the following conditions would benefit most from washed red cells:

Warm autoimmune hemolytic
anemia

Cold autoimmune hemolytic anemia

Elevated serum potassium

Multiple red cell alloantibodies

Feedback

Washing not only reduces the number of leukocytes and platelets that are often responsible for febrile reactions, but also eliminates anticoagulants, ammonia, lactic acid, and potassium.

54. Cryoglobulin testing can be used to:

Screen for rheumatoid arthritis,
Diagnose syphilis

Screen for systemic lupus erythematosus (SLE)

Help diagnose Raynaud's syndrome

Feedback

Cryoglobulin is an abnormal serum protein with a unique ability to precipitate when exposed to cold temperatures. Cryoglobulin is present in Raynaud's syndrome.

55. Which is arranged from least mature to most mature:

Myeloblast, Myelocyte, Band, Neutrophil, Metamyelocyte, Promyelocyte, Stem
Cell

Stem Cell, Myeloblast, Promyelocyte, Myelocyte, Metamyelocyte, Band,
Neutrophil

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Stem Cell, Promyelocyte, Metamyelocyte, Neutrophil, Myeloblast, Myelocyte, Band

Neutrophil, Band, Metamyelocyte, Myelocyte, Promyelocyte, Myeloblast, Stem Cell

56. The measurement of total glycosylated hemoglobin A1c is an effective means of assessing the average blood glucose levels:

Over the past 1-2 weeks

Over the past 2-3 months

Only the past 24 hours

Feedback

The concentration of hemoglobin A1c is directly proportional to the average plasma glucose level that the RBCs are exposed to during their 120 day life span. The glycosylated hemoglobins result from glycosylation of serine, asparagine, and hydroxylysine residues in hemoglobin. There are three glycosylated hemoglobins: Hb A1a, Hb A1b, and Hb A1c, of which Hb A1c constitutes 80%. Most methods measure total glycosylated hemoglobin, which has a high degree of correlation to Hb A1c, and may be reported as such after making the appropriate conversion.

57. Bacitracin susceptibility is useful for which two of the following:

Distinguishing Staphylococci from micrococci

Presumptive identification of Group A streptococci

Identification of Haemophilus

Identification of Neisseria

Feedback

Staphylococci are resistant to bacitracin while micrococcus are sensitive. Group A beta-hemolytic Streptococci are sensitive to bacitracin, while most other Groups are resistant.

58. Which of the following is the proper temperature to use when crossmatching in the presence of a cold antibody:

37 degrees Celsius

25 degrees Celsius

15 degrees Celsius

4 degrees Celsius

Feedback

Most antibodies that are inactive at 37 degrees Celsius, and active only below 37 degrees Celsius (i.e. cold reactive antibodies), are of little clinical significance.

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59. Match the virus with its disease:

Hepadnavirus	Hepatitis
Arbovirus	Encephalitis
Parvovirus	Fifth disease
Paramyxovirus	Measles- Mumps

60. When a urine specimen cannot be cultured immediately it may be:

Stored at room temperature for up to 8 hours

Stored in freezer for up to 24 hours

Neisseria

Stored at 4° C for up to 24 hours

61. Platelet should be stored at what temperature:

1-6 degrees Celsius

10-16 degrees Celsius

20-24 degrees Celsius

34-37 degrees Celsius

Feedback

Platelets should be stored at 20-24 degrees Celsius with continuous gentle agitation. They should be infused within 4 hours after the seal on a platelet unit is broken.

62. The recommended temperature/time/pressure for routine steam sterilization of media is:

121° C for 8-10 minutes @ 10 psi

121° C for 12-15 minutes @ 15 psi

220° C for 8-10 minutes @ 10 psi

220° C for 12-15 minutes @ 15 psi

63. Which of the following casts might be found in the urine of a healthy individual after strenuous exercise:

Epithelial cell casts

Hyaline casts

Granular casts

Waxy casts

Feedback

Hyaline casts may be seen in healthy individuals particularly after exercise.

64. If a laboratory 's control range (using a 99.7 confidence interval) for a given assay is 20.0 to 50.0, what would its means and one standard deviation be?

Mean = 35.0 SD =
15.0

Mean = 35.0 SD =
10.0

Mean = 40.0 SD =
7.5

Mean = 35.0 SD =
5.0

Feedback

The mean would be halfway between 20 and 50, or 35. The range for the assay is within 15 units of the mean, representing 3 SD (equal to 99.7% confidence interval). Therefore, 1 SD = 15/3 or 5.

65. If a potential donor has been transfused blood products, he must be deferred from blood donation for:

1 month

3
months

6
months

1 year

66. An urticarial reaction is characterized by:

Rapid rise in
temperature

Difficulty breathing

Rash and hives

Blood in the urine

Feedback

Urticarial transfusion reactions occur in up to 1% of transfusions. They are manifested by hives, rash, and itching. The transfusion may be resumed after successful administration of antihistamines.

67. Which of the following cells when found upon microscopic examination of the urine would be most indicative of kidney disease:

WBCs and bacteria

Tubular epithelial cells

Squamous epithelial
cells

RBCs

Feedback

Squamous epithelial cells are usually vaginal contaminants.

68. Which of the following statistical methods would be employed to determine how closely two different methods compare with each other:

Linear regression

Standard deviation

Coefficient of variation

Percent difference of means

Feedback

Linear regression can be used to compare one method with another.

69. Elevation in CSF total protein may be seen in all of the following conditions except:

Brain tumors

Bacterial meningitis

Parkinson's disease

CVA

70. Which one of the following is not a system for incubation of anaerobic bacteria:

Candle jar

Glove box anaerobic chamber

Anaerobic jar - gaspak

Anaerobic jar - evacuation replacement

71. A plastic anemia may be caused by all of the following except:

Infections

Chemical agent

Enzyme deficiencies

Ionizing radiation

Feedback

Enzyme deficiencies are usually associated with hemolytic anemias.

72. Which of the following types of whole blood would be the least satisfactory to transfuse to a type AB patient:

Group O

Group A

Group B

Group

AB

Feedback

Group O whole blood contains both anti-A and anti-B which could react with the recipient's RBCs.

73. Bence-Jones proteinuria is associated with all of the following conditions except:

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Macroglobulinemia

Pernicious anemia

Multiple myeloma

Amyloidosis

Feedback

Macroglobulinemia, Multiple Myeloma, and Amyloidosis are all associated with abnormal protein production and/or accumulation which can result in Bence-Jones proteins being excreted in the urine.

74. The slide coagulase test is a rapid method for identifying which of the following organisms.

Staphylococcus hominis

Staphylococcus
pneumoniae

Staphylococcus aureus

Neisseria gonorrhoeae

Feedback

Since not all isolates of *S. aureus* are detected by the slide coagulase test, suspicious organisms negative by the slide test must be confirmed by the tube coagulase test.

75. Which of the following streptococcus exhibits a positive bile solubility test:

S. pyogenes

S.
pneumoniae

S. agalactiae

S. mutans

Feedback

Streptococcus pneumoniae colonies dissolve with the addition of sodium deoxycholate (positive bile sensitivity test) and are sensitive to Optochin- unlike other species of *Streptococci*.

76. Which of the following red blood cells contain the most H antigen:

Group A cells

Group B cells

Group O cells

Bombay
phenotype

Feedback

O cells contain only H antigen, while cells of the other ABO groups contain varying amount of H antigen in addition to their group specific antigen(s). The classic Bombay phenotype is characterized by the absence of A, B, and H antigens.

77. A zinc deficiency in the elderly is often caused by:

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Decreased intake and absorption

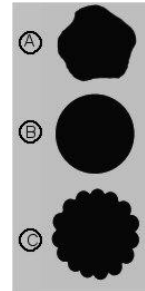
Decreased intake and excretion

Increased intake and excretion

Increased excretion and decreased absorption

78. Match the illustrations with the corresponding description of colony edges:

Irregular	A
Entire	B
Crenated	C



79. ABO blood groups were discovered by:

Mendelson

Morgan

Wiener

Landsteiner

Feedback

Landsteiner first identified the presence of the separate red cell antigens A and B in the early 1900's.

80. Which of the following parasites is not commonly found in the peripheral blood:

Loa loa

Brugia malayi

Dipetalonema
perstans

Onchocerca volvulus

Feedback

The microfilariae of *Onchocerca* do not generally circulate in the peripheral blood. The diagnosis is made by demonstrating the microfilariae in teased skin snips.

81. If an Rh negative patient is administered a unit of R¹R¹ packed red cells, which one of the following antibodies would be most likely to develop:

Anti-c,

Anti-E

Anti-D

Anti-e

Feedback

R¹R¹ (DCE/DCE) cells are positive for the D antigen, which is the most immunogenic antigen of the Rh system, followed by c and E.

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82. A decrease in which of the following in AIDS patients results in increased susceptibility to infection:

CD 4+ cells

CD 8+ cells

HIV

antibodies

HIV antigens

Feedback

It is the CD 4+ cells that help aid our immune system in attacking foreign antigens by initiating the body's response. CD 8+ also helps in the role of immunity by attaching to infected cells to initiate cell destruction. A decrease in HIV antibodies would not leave the host more susceptible to infection since the antibody is directed at the HIV virus only. Finally, a decrease in HIV antigens will also not cause a host to become more susceptible to infections.

83. The primary site of reabsorption of glomerular filtrate is the:

Loop of Henle

Proximal convoluted tubule

Distal convoluted tubule

Collecting duct

84. Which of these is arranged from least mature to most mature:

Lymphoblast, Lymphocyte, Prolymphocyte, Stem Cell

Stem Cell, Lymphoblast, Prolymphocyte, Lymphocyte

Stem Cell, Lymphoblast, Lymphocyte, Prolymphocyte

Lymphocyte, Prolymphocyte, Lymphoblast, Stem Cell

85. MCV is calculated using which of the following parameters:

Hgb and RBC

RBC histogram

RBC and Hct

RBC and MCHC

Feedback

MCV = Hematocrit X 1000/RBC (in millions per microliter). The MCV is expressed in femtoliters (cubic micrometers, 10-15 liters).

86. Which of the following would not be considered a normal part of a routine electrolyte panel:

Sodium

Potassium

Magnesium

Chloride

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Feedback

A routine electrolyte panel typically consists of sodium, potassium, chloride, bicarbonate, creatinine, glucose, and BUN.

87. Which of the following conditions is associated with elevated serum uric acid levels:

- Cushing's syndrome
- Pancreatitis
- Hyperthyroidism
- Gout

Feedback

Gout is a disease manifested by the deposition of crystalline uric acid in joints and soft tissues, with secondary inflammation and pain.

88. Which of the following additives should be used for the collection of a sample for blood gas analysis:

- Sodium citrate
- EDTA
- Sodium oxalate

Heparin

89. What is the site used most frequently in the adult patient when performing a bone marrow biopsy:

- Vertebrae
- Sternum
- Clavicle

Iliac crest

Feedback

Bone marrow specimens are usually obtained in adults from the posterior iliac crest. They may also be obtained from the sternum.

90. The precursor of the platelet which is commonly only found in the bone marrow is:

- Myeloblast
- Metakaryocyte
- Megakaryocyte
- Erythroblast

Feedback

Platelets are formed by the fragmentation of megakaryocyte cytoplasm.

91. Which of the following set of conditions would preclude HDN as a result of Rh incompatibility:

Mother Rh-negative, father Rh-positive

Mother Rh-negative, baby Rh-positive

Mother Rh-negative, father Rh-negative

Mother Rh unknown, baby Rh-positive

Feedback

If both parents are Rh negative, the baby would also be Rh negative.

92. Erythropoietin is produced in:

Bone marrow

Liver

Lymphocytes

Kidneys

Feedback

Erythropoietin, which is produced in the kidneys, stimulates the production of red blood cells.

93. The Rh nomenclature which uses the letters DCE is found in which of the following genetic models:

Landsteiner

Wiener

Fisher-Race

Rhesus

Feedback

Fisher and Race first proposed the existence of the three closely linked genes, and used the DCE terminology to describe their theory.

94. Which of the following organisms is an obligate intracellular parasite:

Proteus

Escherichia

a

Klebsiella

Rickettsia

e

95. An average adult would excrete approximately what volume of urine per 24 hours:

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3000
ml

1500
ml

750 ml

250 ml

Feedback

Normal adult urine volume is 800 to 1800 ml/24hours for males, and 600 to 1600 ml/24 hours for females.

96. What minimum level of specific resistance (megohms@25° C) is required for a Type I water system:

10.
0

5.0

2.0

0.1

Feedback

Specific resistance is the resistance in Ohms of a 1 cm long by 1 cm² cross sectional column of solution. Type I water is the purest, and therefore has the highest resistance. Type II water is used for most routine laboratory determinations, and must have a specific resistance of at least 2.0. Type III water is the least pure; it must have a specific resistance of at least 0.1.

97. Which of the following group B antigens is generally associated with a mixed field reaction:

B

B₃

B

m

Bx

Feedback

B₃ is characterized by a weaker than usual reaction with anti-B and by a mixed field reaction with the same reagent.

98. The most common rapid slide test (MONOSPOT®) for infectious mononucleosis employs:

Horse erythrocytes

Sheep erythrocytes

Intact beef
erythrocytes

None of the above

Feedback

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A positive spot test shows agglutination of horse erythrocytes when added to patient serum previously absorbed with guinea pig kidney, but not when added to patient serum previously absorbed with beef erythrocyte stroma. The test is generally simple, sensitive, and specific, but false negative are common in young children with mononucleosis.

99. Disseminated intravascular coagulation (DIC) is associated with all of the following clinical conditions except:

Septicemia
Obstetric
emergencies
Intravascular
hemolysis

Thrombocytosis

Feedback

Platelet counts are decreased or normal during DIC.

100. Which of the following organisms is most likely to be associated with gas gangrene:

Clostridia histolyticum
Pseudomonas
aeruginosa

Clostridium perfringens

Escherichia coli

101. Which of the following would most likely occur as the result of hemodilution:

Low serum electrolytes

High serum electrolytes
Increased anion gap
Electrolyte concentrations would remain the
same

Feedback

A dilutional effect caused by the sample being hemodiluted, would not cause high serum electrolytes since they have been diluted out. The anion gap could remain the same or become decreased. Finally, the electrolyte concentrations could not remain the same, since there will be a smaller amount in the sample to test due to the diluent.

102. Following a myocardial infarction which of the following enzymes will be the first to become elevated:

CK

LDH
GG
T
AST

Feedback

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GGT is elevated in liver disorders. CK rises before LDH. However myoglobin is the earliest serum cardiac marker to rise after an infarction; it may be positive within two hours post MI. It is not cardiac specific, and can be elevated in skeletal muscle trauma or rhabdomyolysis.

103. India Ink is used to:

Visualize flagella

Visualize shape

Visualize capsule

Visualize
cytoplasm

Feedback

India ink can aid in the visualization of the polysaccharide capsules of yeast such as *Cryptococcus neoformans*.

104. Match the organisms on the right with their appropriate type from the drop down box:

Protozoa	Trypanosoma, Leishmania
Helminths	Trichinella, Schistosoma
Protozoa	Plasmodium
Helminths	Ascaris, Cestodes

105. The most frequent genotype among Rh₀ (D) -negative persons is:

r'

r

r'

r''

rr

r'r'

106. Which one tests should be used to monitor a patient's response to treatment for syphilis:

TPI titer,
ABS titer

FTA-

RPR titer

TPHA titer

Feedback

RPR titer should be performed every three months for one year; a fourfold increase in titer indicates infection, reinfection, or failed treatment; a fourfold decrease in titer indicates adequate treatment.

107. Which of the following anticoagulants will not produce a significant effect on calcium levels in plasma:

EDTA

Heparin

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Oxalate
s
Citrate

Feedback

EDTA, Oxalates, and Citrates remove calcium from the blood, while heparin acts by forming a complex with antithrombin III.

108. Which of the following kappa / lambda ratios is found in normal serum:

4 :
1

3 :
1

2 :
1

1 :
1

109. The A₁ subgroup represents approximately what percentage of group A individuals:

25
%

55
%

75
%

95
%

Feedback

Approximately 80% of all people typed as group A or AB are agglutinated by anti- A₁ sera.

110. The infective stage for all of the intestinal amoebae is the:

Trophozoite

Cyst

Larva

Egg

Feedback

The majority of the amoebae pass through two life cycle stages: a delicate feeding stage called a trophozoite, and a nonfeeding infective cyst. Recovery of either form is considered diagnostic.

111. Which of the following is false about troponin:

It rises much sooner after an MI than CK-MB

It stays positive much longer than CK-MB

It is potentially more specific than CK-MB

Troponin T is often elevated in renal failure patients

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Feedback

Troponin is potentially more specific for myocardial damage than CK-MB and stays elevated longer. It may eventually replace CK-MB as the standard marker of myocardial damage. Troponin and CK-MB both tend to rise approximately 3 hours after a MI; however, troponins can stay elevated up to 2 weeks as CK-MB tends to return to baseline around 36 hours.

112. What is the purpose of using methyl alcohol in the gram stain procedure:

Fix all gram positive organisms

Decolorize all gram positive organisms

Decolorize all gram negative organisms

Fix all gram negative organisms

Feedback

Gram positive organisms resist decolorization by methyl alcohol.

113. Match the differential/ selective enteric medium with its characteristic indicator, fermentable, and bacteriostatic.

Xylose-lysine-deoxycholate	phenol red, lactose, bile salts
Eosin methylene blue	eosin Y and methylene blue, lactose, eosin Y and methylene blue
Bismuth sulfite	bismuth sulfite, glucose, brilliant green
Salmonella-shigella	neutral red, lactose, bile salts

Feedback

XLD has a yellow fermenter and a red nonfermenter. MacConkey has a red fermenter and a colorless nonfermenter. EMB has a black/red fermenter and a colorless nonfermenter. HE has a yellow fermenter and a green nonfermenter. BS has a Salmonella fermenter and a black nonfermenter. SS has a red fermenter and a colorless nonfermenter.

114. Nephelometry involves the measurement:

Light absorption

Light transmission

Light scatter

Atomic absorption

Feedback

Nephelometry is used to measure the light scattered by particles in a solution. It is useful for measuring protein levels in fluids, and antigen-antibody complexes.

115. Which of the following procedures would you employ to monitor the precision of an assay:

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Run assayed controls
Run blinded samples
Run by alternative method

Run samples in duplicate

Feedback

Precision is a measure of reproducibility of a test when it is repeated several times under the same conditions. It could be monitored by running samples in duplicate or triplicate.

116. Which of the following immunoglobulin classes is chiefly responsible for the degranulation of mast cells and basophils:

IgG

IgA

IgM

IgE

Feedback

IgE levels are often increased in patients with allergic disease. IgE binds to the membranes of mast cells and basophils, and if specific antigen is present to react with the IgE molecule, degranulation of these cells occurs, releasing histamines, and other substances into the blood or tissues.

117. The lecithin to sphingomyelin ratio (L/S) is used to assess:

Fetal neurological development

Fetal lung maturity

Fetal viability

Fetal liver development

Feedback

An L/S ratio above 2:1 indicates mature lung development, whereas a ratio below 1.5:1 indicates pulmonary immaturity.

118. What additional fraction would be seen if plasma rather than serum was subjected to electrophoresis:

Alpha-1 antitrypsin, globulins

Gamma

Alpha-2 macroglobulin

Fibrinogen

Feedback

Fibrinogen present in plasma would form a band between the beta and gamma globulins.

119. Which of the following is a routine staining technique used in the clinical laboratory:

Wright-Giemsa

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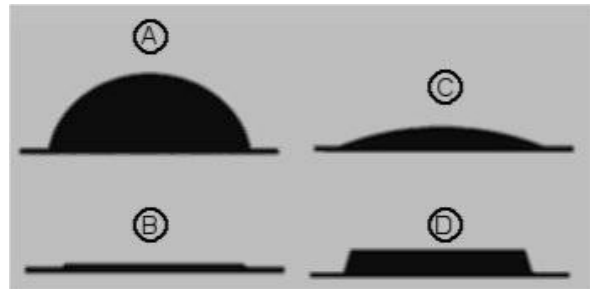
Gram

Romanowsky

All of the above

120. Match the description with the appropriate illustration of colony elevations:

High Convex	▼	A
Flat	▼	B
Low Convex	▼	C
Plateau	▼	D



121. Which of the following is most commonly associated with febrile non-hemolytic transfusion reactions:

Bacterial contamination of the blood

I.V. tubing contaminants

Reaction to plasma proteins

Immune response to leukocytes

122. Which of the following is not a structural component of a typical virion:

Nucleoprotein core

Capsid shell

Lipid envelope

Icosahedral symmetry

Feedback

An intact viral particle typically consists of a nucleoprotein core, capsomeres making up the capsid, and a lipid envelope (absent in some viruses). The symmetry of a virus is usually icosahedral, or helical.

123. Match urine color with substance that might have been responsible:

Phosphates	▼	White	Porphobilinogen	▼	Red to brown
Bilirubin	▼	Yellow			
Pseudomonas	▼	Blue to green			

124. The renal threshold is best described as:

Concentration at which a substance in the blood spills into urine

Concentration at which reabsorption first occurs

Concentration at which kidney can no longer filter the blood

Concentration at which kidney failure begins

Feedback

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The renal threshold is the maximum amount of a substance that the kidney can prevent from entering into the urine.

125. An urticarial reaction is characterized by:

Rapid rise in temperature

Difficulty breathing

Rash and hives

Blood in the urine

Feedback

Urticarial transfusion reactions occur in up to 1% of transfusions. They are manifested by hives, rash, and itching. The transfusion may be resumed after successful administration of antihistamines.

126. On sheep blood agar *Haemophilus influenzae* may exhibit satellite formation around all but which of the following organisms:

Pseudomonas

Neisseria

Staphylococcus

Pneumococcus

Feedback

Neisseria, *Staphylococcus*, and *Pneumococcus* produce enough V factor to allow *H. influenzae* to grow on blood agar near their colonies. This property is utilized in the "satellite test" technique whereby minute colonies of *Haemophilus* are seen in the hemolytic zone surrounding a streak of *Staphylococcus aureus* on sheep blood agar, providing a presumptive identification of *Haemophilus*.

127. Adult Hematopoiesis occurs in:

Vertebrae

Skull

Proximal ends of long bones

All of the above

Feedback

By the age of 18-20 years, active hematopoiesis is limited to the sternum, ribs, pelvis, vertebrae, and skull.

128. A simple check which can be employed to verify that hemoglobin and hematocrit values match would be:

Hematocrit X 3 =
hemoglobin

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Hemoglobin X 3 =
hematocrit

Hemoglobin / hematocrit =
3

Hemoglobin + hematocrit =
3

Feedback

The hematocrit is equal to approximately 3 times the hemoglobin level.

129. How close the assayed value of an analyte is to its actual value is a reflection of:

Precision of the assay

Reproducibility of the
assay

Sensitivity of the assay

Accuracy of the assay

Feedback

Accuracy is defined as how close an assayed value is to the actual value of an analyte.

130. The primary mechanism responsible for glomerular filtration is:

Osmotic gradient

Concentration of blood components

Rate of blood flow through the kidneys

Hydrostatic differential in glomerular
tufts

Feedback

The hydrostatic pressure in the capillaries of the glomerular tuft drives the filtrate across their semipermeable membrane. The normal glomerular filtrate is similar in composition to the plasma, with the exception that molecules with a molecular weight of greater than about 15,000 are not filtered.

131. Which of the following best describes a minor crossmatch:

Reaction of donor cells with recipient
serum

Reaction of donor cells with AHG

Reaction of recipient cells with AHG

Reaction of donor serum with recipient
cells

132. Fire requires what three elements?

heat, fuel, oxygen

paper, match, gasoline

heat, fuel, nitrogen

lighter fluid, charcoal,
grill

133. A 20 year-old female was admitted into the hospital complaining of 10 to 15 bloody mucous stools per day, fever, gastrointestinal disturbances, abdominal pain, and nausea.

The preliminary O & P report went out as "Probable Entamoeba histolytica trophozoites and cysts, confirmation pending." This patient is most likely suffering from:

Traveler's diarrhea

Extraintestinal
amebiasis

Intestinal amebiasis

Giardiasis

134. Which of the following Rh antigens is found the highest frequency in the Caucasian population:

C

E

c

e

Feedback

The e antigen is present in 98% of the Caucasian population.

135. What is another name used to designate a fully committed B-lymphocyte:

T-lymphocyte

Reactive
lymphocyte

Large lymphocyte

Plasma cell

Feedback

Plasma cells are the end stage of B lymphocyte maturation; they are not normally seen in peripheral blood.

136. Serum calcitonin is typically elevated in which of the following conditions:

Medullary carcinoma of the thyroid

Hyperthyroidism

Glioblastoma

Adrenal adenoma

Feedback

Serum calcitonin is normally produced by the C cells of the thyroid. It functions to reduce serum calcium by inhibiting release of calcium from bone. It is a peptide with a molecular weight of 3400, and has a half life of approximately 12 minutes. It is characteristically elevated in medullary carcinoma of the thyroid. Since medullary carcinoma often occurs as an autosomal disorder, family members of patients with this condition should be screened for serum calcitonin.

137. Warfarin inhibits all the following coagulation Factors except:

Factor II

Factor IX

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Factor
VII

Factor XI

Feedback

Warfarin only inhibits vitamin K dependent factors; Factor XI is not vitamin K dependent.

138. Match the organism names from the drop down box to the name of the associated condition listed below.

Plasmodium ovale	Malaria
Trypanosoma cruzi	Chagas' Disease
Cestodes	Tapeworms
Trypanosoma rhodesiense	Sleeping Sickness

139. Serum proteins can be separated by cellulose acetate electrophoresis into how many basic fractions:

4
fractions

5
fractions

6
fractions

7
fractions

Feedback

The five basic fractions are albumin, alpha-1, alpha-2, beta, and gamma globulins.

140. Which of the following specimens would not be considered suitable for anaerobic culture:

Drainage from a puncture wound

Throat swab

Drainage from abdomen

Blood culture

Feedback

Anaerobes are predominant in the colon. Anaerobic habitats have reduced oxygen tension usually resulting from the metabolic activity of aerobic organisms. Thus, anaerobic infections are usually polymicrobial, with aerobes, facultative anaerobes, and obligate anaerobes all contributing to the infection.

141. Which band on the following serum protein electrophoresis scan is not made up of a mixture of proteins:

Beta



Alpha -
1

Alpha -
2

Albumin

142. Which of the following is not necessary for bacteria to grow successfully on artificial media:

Pure isolate

Proper
temperature
Proper Ph
Proper moisture

Feedback

A mixture of bacteria can easily grow together on media as long as the other factors are all maintained correctly.

143. Why would a unit of group O blood never be administered to a Bombay patient:

Anti-A in donor
Anti-B in donor
Anti-H in donor

Anti-H in _____
recipient

Feedback

The classic Bombay phenotype (O_H) is characterized by the absence of A, B and H antigens, and the presence of anti-H, which will react from 4° to 37° C. Bombay patients must therefore be transfused only with blood from donors of the Bombay phenotype.

144. Total magnification of a microscope can be determined by:

Multiplying power of objective times the power of the ocular

Dividing the power of objective by the power of the ocular
Dividing the power of the ocular by the power of the objective
Adding the power of the ocular and objective together X 10

145. IgM antibodies directed against red cells generally:

React best at 37 degrees
Celsius

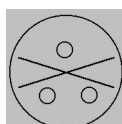
Cause severe hemolytic
reactions

Are identified using the AHG
test

React best at room temperature

146. Identify the reaction seen in Illustration

Identity



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Nonidentity

Partial
identity

147. Which of the following organisms is not an aerobic organism:

Francisella

Bacteroides

Pseudomonas

Neisseria

Feedback

Francisella tularensis is an aerobic gram-negative coccobacillary organism requiring cystine or cysteine to grow. It causes tularemia, which can manifest as cutaneous papules and ulcers, conjunctivitis, fever, myalgias, and lymphadenopathy. It can be diagnosed by culture on appropriate media, or serology. Bacteroides fragilis is an anaerobic gram-negative rod which is resistant to most penicillins. It can cause a variety of life threatening infections. Pseudomonas aeruginosa is a strictly aerobic gram-negative motile bacillus; it causes a variety of infections especially among patients who are immunocompromised for a variety of reasons, and it causes wound infections in moist air.

148. Which of the following statements about Rickettsia is false:

They are obligate intracellular parasites

They are gram negative bacilli

Associated diseases are usually diagnosed by
serology

They are cultured in many hospital laboratories

Feedback

Various Rickettsial species cause typhus, Rocky Mountain spotted fever, Rickettsialpox, and Q fever. Rickettsial organisms are cultured only by research and reference laboratories, and the diagnosis is usually achieved by a combination of clinical findings, and acute and convalescent serology. Early diagnosis of Rocky Mountain spotted fever can also be made by immunofluorescence testing of a skin biopsy, where Rickettsia can often be found within endothelial cells of capillary vessels.

149. Coarse basophilic stippling in all of the following EXCEPT:

Megaloblastic
anemias

Thalassemias

Lead poisoning

Hemolytic anemia

Feedback

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Hemolytic anemia may be associated with fine basophilic stippling due to precipitated RNA in polychromatophilic erythrocytes. It is not usually associated with coarse stippling. The other conditions above have coarse stippling in the setting of abnormal hemoglobin synthesis.

150. Human chorionic gonadatropin (hCG) is used in the determination of:

Liver
function

Fetal
maturity

Pregnancy

Steroid
levels

151. Estrogen and progesterone markers are most commonly used to provide prognostic information about:

Breast cancer

Uterine cancer

Menopause

Cervical cancer

Feedback

Patients with tumors positive for both estrogen and progesterone receptors tend to respond favorably to hormonal therapy, whereas those without generally do not. Patients with positive estrogen and progesterone receptors also have a somewhat better prognosis.

152. Materials such as strong acids and bases are classified as:

Corrosives

Chemical
irritants

Flammable
liquids

Carcinogens

153. Elevation in conjugated bilirubin is most likely to be found in which of the following conditions:

Transfusion
reactions

Erythroblastosis
fetalis

Cirrhosis of the liver

Biliary obstruction

Feedback

Posthepatic jaundice is the result of bile duct obstruction, not impaired hepatic function. It will result in elevation of direct (conjugated) bilirubin.

154. Pluripotential stem cells are capable of producing which of the following:

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Only T-lymphocyte and B-lymphocyte subsets

Erythropoietin, thrombopoietin and leukopoietin

Lymphoid and myeloid stem cells

Daughter cells from only a single cell line

Feedback

Pluripotential stem cells are ultimately capable of differentiating into all types of leukocytes.

155. Match the differential/ selective enteric medium with its characteristic indicator, fermentable, and bacteriostatic.

	☐	phenol red, lactose, bile salts
	☐	eosin Y and methylene blue, lactose, eosin Y and methylene blue
	☐	bismuth sulfite, glucose, brilliant green
	☐	neutral red, lactose, bile salts

Feedback

XLD has a yellow fermenter and a red nonfermenter. MacConkey has a red fermenter and a colorless nonfermenter. EMB has a black/red fermenter and a colorless nonfermenter. HE has a yellow fermenter and a green nonfermenter. BS has a Salmonella fermenter and a black nonfermenter. SS has a red fermenter and a colorless nonfermenter.

156. What is the largest constituent of plasma nonprotein nitrogen:

Ammonia

Creatinine

e

Ketones

Urea

157. What principle(s) of flow cytometry are employed when performing immunophenotyping:

Defraction gradients

Impedance

Defraction gradients and impedance

Flourescent antibody tagging and light scatter

Feedback

Flow cytometry employs a combination of fluorescent antibody tagging of cells and analysis with laser light scatter.

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158. Which is arranged from least mature to most mature:

Stem Cell, Rubriblast, Prorubricyte, Rubricyte, Metarubricyte, Reticulocyte, Erythrocyte

Stem Cell, Prorubricyte, Metarubricyte, Erythrocyte, Rubriblast, Rubricyte, Reticulocyte

Erythrocyte, Reticulocyte, Metarubricyte, Rubricyte, Prorubricyte, Rubriblast, Stem Cell

Rubricyte, Rubriblast, Stem Cell, Prorubricyte, Erythrocyte, Reticulocyte, Metarubricyte

159. The term used to describe patients with absence of Rh antigens is:

Rh_d

Rh_{null}

Rh_{mod}

Rh_o

Feedback

Rh_{null} individuals have no Rh antigens. Rh_{mod} individuals show reduced and varied reactivity with Rh antigens.

160. Which is the best method for examination of synovial crystals:

Phase contrast

Darkfield microscopy

Brightfield
microscopy

Polarized light

Feedback

A polarizing microscope with a first order red compensator is used to identify crystals in synovial fluid: Needle shaped monosodium urate crystals are strongly negatively birefringent, while rhomboid calcium pyrophosphate crystals are weakly positively birefringent.

161. Which of the following antibodies is the most common cause of hemolytic disease of the newborn:

Anti-
A

Anti-
B

Anti-
E

Anti-
D

162. Which of the following is not true about members of the Enterobacteriaceae:

Gram-negative

Oxidase positive

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Reduce nitrate to
nitrite
Ferment glucose

Feedback

Any oxidase-positive organism can be excluded from the Enterobacteriaceae. The other characteristics are as a rule present in these organisms.

163. Match these autoimmune diseases with their corresponding serological markers:

	☐	Antimitochondrial antibodies
	☐	Anticentromere antibodies
	☐	Antineutrophilic antibodies
	☐	Antimyocardial antibodies

164. Match each virus with its appropriate nucleic acid content:

	☐	Togavirus
	☐	Coronaviruses
	☐	Herpesviruses
	☐	Adenovirus

165. Which one of the following is not a benefit of using packed RBCs:

Decreasing the load of potential donor antibodies

Decreasing the risk of transfusion associated infection

Decreasing plasma volume

More efficient use of the whole blood unit

166. Match the following terms with the statement that best describes each:

	☐	Membrane covering the brain under the skull
	☐	Fluid accumulation due to a malfunction of ability to form and reabsorb fluid
	☐	Inflammation of the pleural membranes
	☐	Excess accumulation of fluid within any of the body's serous cavities

167. The adult worms of which of the following reside in the intestine or its blood vessels:

Heterophyes heterophyes

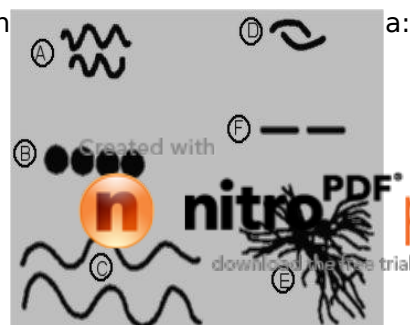
Schistosoma mansoni

Clonorchis sinensis

Schistosoma
haematobium

168. Match the illustrations with the corresponding

	☐	A



a:

☒	B
☒	D
☒	F

169. If a test is said to have a sensitivity of 95%, it will :

Miss 5 out of 100 negatives

Miss 5 out of 100 positives

Detect 5 out of 100
positives

Detect 5 out of 100
negatives

Feedback

A sensitivity of 95% means that 5 results out of a possible 100 that should have been detected as positive by a method will have been reported as negative. These results are termed false negatives.

170. Which one of the following are not associated with a polyclonal (broadbased) increase in gamma globulins?

Liver disease

Chronic
inflammation

Immune reaction

Immunodeficiency

Feedback

Immunodeficiency would, of course, generally be associated with a decrease in serum immunoglobulin levels, and an associated decreased gamma band.

171. Which of the following tests would be used to directly document the presence of a specific organism in a clinical specimen:

ELISA test

Hemagglutination test

Hemagglutination inhibition
test

Direct fluorescent antibody
test

Feedback

A direct fluorescent antibody test (DFA) can be used, for example, to detect antigens of Legionella, Bordetella, Neisseria, and Treponema in appropriate clinical specimens. However DFA can detect only antigens, not antibodies.

Created with

172. That portion of an enzyme which is separated from its cofactor is called a(n):

- Partial enzyme
- Isoenzyme
- Coenzyme
- Apoenzyme

Feedback

A partial enzyme is not an actual term used in the laboratory. An isoenzyme is a related enzyme with a different chemical structure. Finally, a coenzyme is a non-protein molecule (often a vitamin) that helps an enzyme become active.

173. Increases in the MB fraction of CK is associated with:

- Liver disease
- Bone disease
- Muscle trauma
- Myocardial infarction

Feedback

The isoenzyme CK-MB is fairly cardiac specific. It is elevated within 6 to 8 hours of a myocardial infarction, and remains elevated for about 2 to 3 days post infarction.

174. A normal hemoglobin molecule is comprised of the following:

- Ferrous iron and four globin chains
- Four heme and four globin chains
- Four heme and one globin chains
- One heme and four globin chains

Feedback

A normal hemoglobin molecule consists of a tetramer with a molecular weight of 64,500 daltons. The constituent monomers are each composed of one heme molecule, and one polypeptide globin chain.

175. A delayed hemolytic transfusion reaction is most likely to be the result of which of the following antibodies:

- Le^a
- A
- Jk^a

B

Feedback

Jk^a (Kidd) antibodies are very dangerous; they disappear from circulation quickly and can cause severe delayed transfusion reactions.

176. Increased excretion of creatinine would be expected in which of the following groups:

Elderly
males/females

Adult males

Adult females

Children/infants

Feedback

Diets high in meats, and extreme exercise will cause a significant increase in creatinine excretion.

177. Pheochromocytoma is a tumor of the adrenal medulla that results in elevated urinary levels of all but which of the following:

Cortisol

Free catecholamines

Metanephrines

Vanillylmandelic
acid

Feedback

Pheochromocytoma is an adrenal or extra adrenal neoplasm that secretes catecholamines. Patients with pheochromocytoma often exhibit persistent and paroxysmal hypertension. The single best screening test is urinary metanephrines. Urinary free catecholamines, and vanillylmandelic acid are also elevated.

Acknowledgement

I m thank full to my God he give me

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Muhammad Younis

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Lab. Technician
NNP, Rabigh, KSA
00966-591-342865
Unis_memon85@yahoo.com

1. Leukocytes involved in anaphylactic hypersensitivity and inflammatory reaction

- a. Basophiles
- b. Monocytes
- c. Lymphocytes
- d. Neutrophils
- e. Eosinophils.

2. The person should not have donated blood within the previous

- a. 3 month.
- b. 5month.
- c. 2 month.
- d. 1year.

3. Oocysts found in

- a. Entamoeba histolytica
- b. Giardia lamblia
- c. Trypanosoma sp.
- d. Plasmodium malaria
- e. Toxoplasma gondii

4. Acidic skin Burn neutralized by

- a. 5% acetic acid
- b. Boric acid powder
- c. Magnesium hydroxide
- d. Milk
- e. Sodium bicarbonate powder.

5. Gram negative bacteria stained

- a. Dark purple
- b. Yellow
- c. Green
- d. Red

6. Test differentiate staphylococci from streptococci

- a. Catalase
- b. Coagulase
- c. Citrate
- d. Bile solubility

7. elevated sodium level is known as

- a. Hypernatraemia
- b. Hyponatraemia
- c. Hypercholestremia
- d. Hyperkalaemia

8. vaginal swab is required for the most successful isolation from women's

- a. Trichomonas vaginalis
- b. N.gonorrhoea
- c. S.hematobium
- d. Ascaris lumbricoid

9. Immunoglobulin consists of five parts of Antibodies (Pentameric).

- a. IgG
- b. IgM
- c. IgD
- d. IgA
- e. IgE

10. Normal plasma Prothrombin time (PT)

- a. 36 – 50 Sec.
- b. 8 – 10 Sec.
- c. 13 – 2 Sec.
- d. None of above

11. The general blood donor is :

- a. A blood group.
- b. B blood group.
- c. O blood group.
- d. AB blood group.

12. Which of the following does not used in ziehl-nelsen stain?

- a. Carbon fuchsine
- b. Acid alcohol
- c. Methylene blue
- d. Crystal violet

13. Philadelphia chromosome is a specific chromosomal abnormality that is associated with.

- a. ALL
- b. AML
- c. CML
- d. None.

14. Hormones from cortex

- a. Thyroxin
- b. Oxytocin
- c. Prolactin
- d. Cortesol

15. ANA , AMA , ASMA test is :-

- a. والله ماني متذكر الاجابات لكن الاجابة الصحيحة اعرفها ..
- b. Autoimmune Diseases الاجابة هي

16. Which of the following immunoglobulins is present normally in plasma at the highest concentration?

- a. IgG
- b. IgM
- c. IgA
- d. IgD
- e. IgE -----} unflexxbile

17. Which immunoglobulin is the principal one found in secretions such as milk?

- a. IgG
- b. IgM
- c. IgA
- d. IgD
- e. IgE

18. Albert stain is used to diagnose

- a. Mycobacterium tuberculosis
- b. Mycoplasma
- c. Enterobacteriaceae
- d. Corynebacterium diphtheria

19. Normal reticulocyte in adult is

- a. 0.2 – 0.5 %
- b. 2 – 5 %
- c. 0.2 – 2 %
- d. 1 – 2 %

20. All of the following test use in myocardial except

- a. Creatinin
- b. Creatinin clearance
- c. sGPT
- d. sGOT

21. Eosinophil raised in the following except?

- a. Allergic
- b. Parasitic disease
- c. Hodgkin disease
- d. Bacterial disease

22. Biochemistry test used sample except

- a. Urine.
- b. Whole blood
- c. Serum
- d. Stool

23. The Normal range of HDL

- a. 45- 70 mg\dl
- b. 70-100
- c. 100-150

24. Yellow brown barrel-shaped egg, colorless producing plug polar

- a. Ascaris
- b. Tenia soliom
- c. Trichuris trichiura
- d. Entamoeba hcaistolyti

25. The main site of production of ATP in the cell is the

- a. Cell wall
- b. Cell membrane
- c. Cytoplasm
- d. Mitochondria

26. Bordetella pertussis is the cause of

- a. Scarlet fever
- a. Whooping cough
- b. Rheumatic fever
- c. Pneumonia

27. Which from the following NOT include in cell wall of bacteria:

- a. Pilli.
- b. Cell membrane.
- c. Flagella.
- d. Definite nucleus

28. Enterobacteriaceae can infection in:

- a. Urinary tract only
- b. Steam blood-urinary tract- chest
- c. Gastrointestinal disease only
- d. Steam blood-Urinary tract - Gastrointestinal disease

29. Hypocalcaemia in patient occur if the level of calcium is:

- a. 16
- b. 12
- c. 10
- d. 7.5

30.Hormone replication of RBCs:

- a. Erythropoietin
- b. Creatin kinas
- c. Amylase
- d. Progesterone

31.Storage temperature of platelets

- a. 37 C
- b. 35 – 40
- c. 20 – 22
- d. -4

32.Hot air oven temp.

- a. 121 C° for 15 min
- b. 180 C° for 30 min
- c. 160 C° for 30 min
- d. ALL

33.Chinese litter sees in:-

- a. C. diphtheria
- b. S.pyogenes
- c. Staph aureus
- d. E.coli

34.In blood group use:-

- a. Known cell with unknown serum
- b. Unknown cell with known serum
- c. Know cell with unknown cell
- d. Unknown cell with unknown serum

35.Hb used in:-

- a. Utilize therapy anemia
- b. Diagnosis anemia
- c. Utilize therapy of jaundice
- d. ALL

36.The antibody of blood group is:

- a. Anti A and B
- b. Anti A and C
- c. Anti A and O
- d. All of the above

37.We can differentiate from gram (-)and gram (+) by:

- a. Cell wall
- b. Cell membrane
- c. Nucleus
- d. Cytoplasm

38.The following microorganism will not take the gram stain:

- a. E.coli
- b. Streptococcus
- c. Staphylococci
- d. Mycobacterium sp

39.When the micro invades, the body B-cell will secret and it will transfer to

- a. Memory cell
- b. Plasma cell
- c. Phagocytic cell
- d. Cytotoxic

40.TORCH means

- a- Toxoplasma , Roubella , Cytomegalovirus,AIDS
- b- Toxoplasma ,Roubella , Cytomegalovirus , Hepatitis
- c- Toxoplasma ,Cytomegalovirus , Herps virus
- d- ALL

41.Arterial blood for

- a. Blood chemical
- b. Hormones
- c. Blood gases
- d. Enzyme

42.All of the following bacteria cell components except

- a. Cell wall
- b. Cell membrane
- c. Cytoplasm
- d. Pilli
- e. Mitochondria

43.Eye swab cultur in

- a. MaCconky
- b. CLED
- c. Chocolate
- d. Blood + chocolate agar

44.Heprenized syringe use to collect _____ sample

- a. Synovial
- b. CSF
- c. Venous
- d. Arterial

45.Safety in the Lab include vaccination of stuff against

- a. HAV
- b. HCV
- c. HBV
- d. ALL

46.Reject Blood donor if:-

- a. Temperature more than 38.5
- b. Blood pressure 120/80
- c. Heart pulse rate 72/min

47. AML different from ALL in

Bleeding and Purpura

- a. More Increased WBCs
- b. Granule neutrophile
- c. Auer rods

48. Ziehl-Neelsen stain for staining

- a. Mycobacteria
- b. E.coli
- c. Corynebacterium diphtheria
- d. Salmonella

49. Lactos (+) , Indol (+) , MR (+) , VP (-) , citrate (-) are

- a. Escherichia
- b. Klebsiella
- c. Salmonella
- d. Nessiria

50. The media can grow some bacteria and inhibit another bacteria is

- a. Basic media
- b. Differential media
- c. Selective media
- d. Enriched media

51. One is not true about acid:

- a. Proton donor
- b. Turn litmus paper to blue
- c. Sour taste
- d. React with alkaline to give water and salt

52. Amoeba stained by

- a. Gram stain
- b. Geisma
- c. Iodine eosin stain
- d. Leishman

53.False in OGGT because

والله ما اذكر الخيارات لانها كانت طويلة .. لكن كان اغلبها صحيح واللي كانت خطأ واضحه هذي ..

a. The patient restrict carbohydrate intake in the days or weeks before the test

.الي معناها ان المريض يحرم نفسه من الكربوهيدرات قبل الاختبار بأيام ..

54.Monospot test is done to diagnose

a. Infectious mononucleosis

b. Scarlet fever

c. Reumatic fever

d. AIDs

هذي الاسئلة اللي جاتني في اختبار الهيئة .. وان شاء الله فالكم
النجاح والتوفيق ..

الاختبار يبي له شوية تركيز فقط .. وبإذن الله تحل اللي ينجحك
وزيادة بإذن الله ..

دعواتكم لي بالتوفيق

اخوكم شادي ..

مختبرات العرب

"سبعين استغفارة نستغفر بالأسحار
:وقال أبو سعيد الخدري رضي الله عنه
السلام سأل جبريل عليه السلام فقال: يا جبريل أي بلغنا أن داود عليه
أدري، إلا أن العرش يهتز في السحر الليل أفضل؟ فقال: يا داود ما
المستغفرين، واكتب لنا عز الدنيا اللهم اجعلنا من التوابين، واجعلنا من
والآخرة، وبلغنا مما تحب آمالنا
على سيدنا محمد وعلى آله وصحبه وسلم وصلى الله

1. The unit of measuring PO2 in blood is

- a. Mg/dl.
- b. Gm/dl.
- c. Ml/min.
- d. mmHg
- e. Mmol/l.

في هذا السؤال يسأل ماهيا الوحدة التي أستطيع قياس الأكسجين في الدم الاختيار
الصحيح ملي متر لكل زئبق
لكن في اختيارات الهيئة الجديدة ممكن تتغير وبدل يجب لك ملي متر لكل زئبق
kpa يجب
يعني يجب نفس السؤال لكن يغير في الاختيارات
mmHg=kpa
نفس الحل

2. O2 delivery in the blood equal to

- a. Mg/dl.
- b. Gm/dl.
- c. Ml/min.
- d. mmHg
- e. Mmol/l.

يقول لك الأكسجين الذي يسيل في الدم ماذا يساوى بالوحدات الحل الصحيح سي

3. Pituitary gland called

- a. Sweet gland
- b. Mammary gland
- c. Master gland
- d. Purity gland

يقول الغدة النخامية لها عدة اسماء ماهيا الاسم الأخرى لها نختار ماستر قلاند
لكن ممكن في اختبارات الهيئة الجديدة يجيب نفس السؤال لكن يغير في الاختيارات
يعني pituitary gland=master gland=mother gland
يعني الغدة النخامية لها ثلاث اسماء ممكن يغير لك في هذا السؤال اهم شيء نحفظ
ان الغدة النخامية لها ثلاث اسماء
والهيئة اكيد راح تجيب لك واحد من هذه الأسماء مراح تجيب كلها

4. The Symbol (ST) in the Lab means

- a. Blank
- b. Test
- c. Standard
- d. Control
- e. Non

هذا السؤال جدا سهل ويقول لك الاختصار اس تي ماذا يعني اكيد نختار اول حرفين
زي بعض
B=blank
T=test
ممكن يجيب لك هذه الاختصارات ويقول لي ايش هيا

5. CO2 transported in Plasma as

- a. Bicarbonate ions
- b. Carbonate ions
- c. Carbohydrate
- d. Sulphate ions
- e. CO2

في هذا السؤال بيقول لك ثاني أكسيد الكربون كيف ينتقل في البلازما الاختيار
الصحيح ينتقل على هيئة أيونات البيكربونات

لان كلنا نعلم ان ثاني اكسيد الكربون يعتبر غاز سام لذلك لا ينتقل في الجسم كثاني اكسيد الكربون وهذه من الحكمة الالهية لنا لذلك ينتقل على هيئة ايونات البيكروبنات لك لا يكون ضار على الجسم

6. In Disseminated Intravascular Coagulation (DIC) diagnosis by

- a. PT
- b. PTT
- c. Reduced in fibrinogens level
- d. Severe Thrombocytopenia *reduced Platelets*
- e. ALL
- e. Non

disseminated السؤال بداية كلمة

هذا الاختصار اذا رأيت معنى هذه الكلمة مرض يأكل عوامل التجلط في الدم يعني المريض راح يكون عنده سيولة في الدم واذا رأيت في الاختيارات أن جميع الاختيارات تخص التجلط في الجسم لذلك الحل سوف يكون كل الاختيارات صحيحة

7. B- cell produce

- a. Antibodies
- b. Cytokines
- c. Sugar
- d. Toxic
- e. Interferon

هذا السؤال ممكن يجي بعدة طرق وعدة اجابات لكن بأذن الله بس افهم هذا الشرح اللي راح اشرحه وبأذن الله تحل كل سؤال يجيك من هذه الأسئلة

الماعة تنقسم الي قسمين:

1-cellular الأنسجة

2-humoral الدم

يعني خلاص فهمت أن المناعة قسمين جزء الدم وجزء الأنسجة طيب ١-

يعني اذا جسمنا دخل فية جسم غريب المناعة في الجسم راح تشتغل في الجسم
عن طريق الأنجسة أو عن طريق الدم

الحين نمسك كل جزء ونقول ايش يعمل وكذا

humoral نمسك أو جزء اللي هو

humoral blood → bone marrow → B-Cell أو B-

lymphocytes → antibody

يعني خلايا الهيمورل تنتج خلايا البي وخلايا البي تنتج الأنتدي بدي

لازم تحفظها زي اسمك هذي

السهم ترى سهم واحد

الحين نجزي للجزء الثاني اللي هو الأنسجة-2

Cellular blood → Thymus → T- cell أو

T-lymphocytes → cytotoxin

السهم سهم واحد بس انفصل على جزئين

يعني خلايا الأنسجة تنتج خلايا التيمس وخلايا التيمس تنتج خلايا التي سل

وخلايا التي سل تنتج سايتو توكسن

يارب الشرح وأضح

8. DAT positive test occurs in Cases such as

- a. Hemolytic disease of newborn
- b. Hemolytic Blood transfusion
- c. Warm reactive autoantibodies
- d. Cold Reactive autoantibodies
- e. Paroxysmal cold hemoglobin.

f. All.

معنى هذا الاختصار كمايلي

DAT(direct agglutination test)

يقول يقولك هذا الاختيار يحدث فين يحدث في جميع ماسبق

9. Leukocytes have short life Spain polymorph nuclear multiple **lobes and have mobile phagocytosis have receptor for IgG and complement**

- a. Basophiles
- b. Monocytes
- c. Lymphocytes
- d. Neutrophils**
- e. Eosinophils.

هذا السؤال جدا مهم في الهيئة ويجي بعدة طرق و عدة أسئلة
شوف أول منشوف في السؤال كمل لوبس اللي محددة بالأحمر على طول تختار
نيترو فيل يعني أي شيء في السؤال على طول

Lopes= **Neutrophils**

الحين راح اكتب خصائص النيترو فيل عشان اذا جاء أي احد من هذه الخصائص تعرف
انك راح تختار نيترو فيل وممكن يغير على كيفية في صيغة السؤال اهم شيء أنت تكون
حافظ وفاهم

neutrophils: خصائص

1-75%--40%نسبة وجودها أعلى شيء النسبة لازم تحفظها-

2-acute bacteria infection تزيد هذه الخلايا في حالة العدوى بالبكتيريا-

3-multible lobes يعني فيها العديد من اللوبس زي مقلنا فوق

4-granule circulation أنت احفظها الآن وبعدين راح اشرحها راح تجي في سؤال
آخر

أهم شيء تعرف هذه الخصائص أي شيء يجيك من هذه الخصائص يقولك نوع الخلايا
neutrophils على طول نختار

10. Leukocytes involved in anaphylactic hypersensitivity and inflammatory reaction

a. **Basophiles**

b. Monocytes

c. Lymphocytes

d. Neutrophils

e. Eosinophils.

في هذا السؤال جدا مهم يقولك ماهيا نوع البكتيريا البيضاء التي ترتفع في حالة الحساسية و الألتهاب اح تقول البيسو فيل ونسبة وجودة هذه النوع من ٠% الى ١% يعني هذه النوع من الطبيعي تكون غير موجودة لكن اذا كانت موجودة أعرف انوة فية حساسية أو التهاب يعني اذا قللك ماهو النوع اللي طبيعي يكون غير موجود تقول البيسو فيل يعني عرفنا خصائص مهمة

Basophils:

ترتفع في حالة الحساسية وفي حالة الألتهاب-1

نسبة وجودة من ٠% الى ١%-2

من الطبيعي تكون غير موجودة -3

11. Fixed tissue macrophages are

a. Basophiles

b. **Monocytes**

c. Lymphocytes

d. Neutrophils

e. Eosinophils.

في هذا السؤال يقولك الخلايا المثبتة ماهيا على طول نقول مونو سايت
macrophages=monocytes يعني

13. A guideline reference range for MCV in health patient

a. **80-98 fl.**

b. 27-32 pg

- c. 31.5-36 g/dl.
- d. 15.18 mg/dl.
- e. 13.5-18 g/dl.

14. A guideline reference range for MCH in health patient

- a. 80-98 fl.
- b. 27-32 pg
- c. 31.5-36 g/dl.
- d. 15.18 mg/dl.
- e. 13.5-18 g/dl.

15. A guideline reference range for MCHC in health patient

- a. 80-98 fl.
- b. 27-32 pg
- c. 31.5-36 g/L
- d. 15.18 mg/dl.
- e. 13.5-18 g/dl.

طبعاً سؤال ١٣-١٤-١٥

جدا مهمة في الهيئة مرة مرة وانا اقولط طريقة سهلة لحفظها

MCV=80-98FL

MCH=27-32Pg

MCHC=31,5-36G/L

مهم تعرف الوحدات جدا مهم ممكن يجيب لك نفس الرقم ويغير في الوحدات أحفظ
الوحدات

وممكن يجيب لك أرقام قريبة من هذه الأرقام بس انت تكون فاهم

يعني زي أول وحدة ممكن يجيب لك انها من ٨٠-٩٠

هذي صح يعني اهم شيء يكون الرقم قريب من بعض

16. Gram positive rods give gray colony color

- a. *Bacillus anthracis* الجمرة الخبيثة
- b. *E.coli*

- c. Shigella
- d. Mycobacterium
- e. Non

يارب أول شيء شرحتة وأخذ مني ربع ساعة وأنا اشرحة وراح كل تعبني وانمسخ يارب..

طبعا الحين راح اقول معلومات جدا مهمة
في هذا السؤال يقول غرام وموجب وعصوية وتعطي مستعمرات لونها رمادي على
طول اختار الجمرة الخبيثة وأحفظ اسمها بالإنجليزي
وممكن يجيب لك اسمها ويؤكدك ايش اسم المرض اللي تسببه
يعني يقولك

Bacillus anthracis=wool sortes disease

هذا اسم المرض اللي تسببه
يعني فيه سؤالين على الجمرة الخبيثة

الحين لمن نجي نصبغ البكتيريا فيه صبغتين
أول شيء نصبغ ونسميها الصبغة الأولى وبعدين نصبغ مرة ثانية ونسميها الصبغة الثانية
خلاص يعني صبغة أولى وصبغة ثانية
في الهيئة ممكن يجيك ويؤكدك ايش اسم الصبغة الأولى وايش اسم الصبغة الثانية

Primary stain=crystal violet

Secondary stain-safranin methyl red أو لها اسم ثاني

يعني الصبغة الأولى لونها موف وممكن يقولك لونها أزرق خلاص يعني الصبغة الأولى لها
لونين ياموف يالزرق

والصبغة الثانية لونها احمر

خلاص فهمتمو

وفيه شيء اسمه غرام موجب وغرام سالب
من خصائص غرام موجب الجدار حقه ثقيل
والغرام سالب الجدار حقه خفيف يعني

Gram positive=thick

Gram negative=thin

الحين راح نتكلم ايش يصير لمن نصبغ غرام موجب من خصائصها انها ثقيل الجدار يعني أول
منصبغ الصبغة الأول راح يمسك فيها اللون ويصير لونها موف

لمن غرام سالب الجدار حقها خفيف ومراح تمسك فيها الصبغة الأولى
واذا جينا نصبغ الصبغة الثانية
غرام موجب خلاص مسكت فيها الصبغة الأولى وصار لونها موف
ولكن الغرام سالب راح تمسك فيها الصبغة الثانية ويصير لونها أحمر
يعني
Gram positive=thick=violet color or blue color
Gram negative-thin=red color

17. Anticoagulant used in W.B.Cs counting

- a. Sodium citrate
- b. Ammonium oxalate
- c. SPS
- d. EDITA
- e. Heparin

هنا يقولك ايش المادة المانعة للتجلط اللي نستخدمها لعد كريات الدم البيضاء راح نقول
الأدتا

وهذا ممكن يجي بعدة طرق لان

EDITA

نستخدمها لعد كريات الدم البيضاء وكريات الدم الحمراء ولكل

CBC

يعني اللي المادة المانعة للتجلط في جهاز الس بي سي هيا الأدتا
خلاص مفهوم

18. In manual counting of platelets the solution used is

- a. Acetic acid
- b. Normal saline
- c. Ammonium oxalate reagent
- d. Dis.Water
- e. Non

هذا السؤال يجي مئة ثلاث أسئلة

يقولك في السؤال ماهيا المحلول اللي نستخدمه في العد اليدوي للصفائح المودة نختر

الأمونيوم اوكسليت

ممكن يجي ويقولك كريات الدم الحمراء وممكن يقولك كريات الدم البيضاء

WBC=acetic acid

RBC=normal saline

يعني الصفائح الدموية لها محلول وكريات الدم الحمراء لها محلول وكريات الدم البيضاء لها محلول

19. Neutrophils count in normal patient

- a. 40 – 75 %
- b. 21- 40 %
- c. 1-6%
- d. 0 -1 %.

هذا السؤال خلاص شرحته من قبل عرفنا انوية النيتروفيل نسبتها من ٤٠% الى ٧٥%

وعرفنا بعد انها ترتفع في حالة العدوى بالبكتيريا وان فيها لوبس

20. Anticoagulant used in ESR test

- a. Sodium citrate
- b. Ammonium oxalate
- c. SPS
- d. EDTA
- e. Heparin

هنا يقولك ماهيا المادة المانعة للتجلط في تحليل الأيسار
هيا الصوديوم ستريت ويكون تركيزها ٤٠٠ مايكرون
مهم هذا السؤال

21. Raised reticulocyte counts found when there is

- a. Hemolytic anemia
- b. Diabetus mellitus
- c. Pancretic disease
- d. Stomach ulcer

في هذا السؤال ايشياء كثيرة لازم نحفظها ونفهمها
قبل منقول السؤال لازم نعرف انوية

هيا عبارة عن كريات دم حمراء غير ناضجة=Reticulocytes
يعني يقولك في السؤال حالة ارتفاع كريات الدم الحمراء الغير ناضجة متى تحدث
نختار هيموليتك انيميا

ايش شيء في خلل في كريات الدم الحمراء يسبب انيميا

22.The main HB in infant below 3 months.

- a. HBA
- b. HBA2
- c. **HBF**
- d. HBS

احنا عندنا ثلاث انواع من انواع الهيموجلوبين

ويكون موجود في الناس البالغين نسبة وجوده في الناس بيتا 2 الفا 2-HBA=1
97% الكبار

نسبة وجوده 2% دلتا 2 الفا 2-HBA₂

يكون هذا الهيموجلوبين موجود فقط في النونو من 2 جاما 2-HBF=3
ثلاث

يكون بنسبة 70% لكن عندما يكبر الطفل تقل هذه النسبة
لكن اذا كبر الطفل ومازالت مرتفعة تسبب مرض الثلاسيميا

يعني النوع الأول موجود في الناس الكبار بنسبة 95%

والنوع الثاني موجود بنسبة 2%

والنوع الثالث موجود في النونو اللي عمرة 3 شهور واذا كبر النونو ومازل مرتفع
عنده يسبب مرض الثلاسيميا

23.Anticoagulant used in prothrombin time assay is

- a. **Sodium citrate**(الكمية حقنة ٢٠٠ ميكرون)
- b. Ammonium oxalate
- c. SPS
- d. EDITA
- e. Heparin

PT هذا السؤال يقول ماهيا المادة المانعة للتجلط اللي نستخدمها في تحليل
طبعا هذا السؤال مر علينا من قبل
يعني اذا الاليسار والبرو ترومبين نفس المادة المانعة للتجلط لكن تختلف الكمية
ESR=400
PT=200
لكن المادة نفسها لكن تختلف النسبة

24. In DIC all the following is increased except

- a. PT
- b. APTT
- c. TT
- d. Platelets
- e. None of the above.

شرحنا هذا السؤال من قبل في سؤال ٧ وقلنا الاختصار معناه ان المريض عنده
عوامل التجلط فيها مشكلة وراح ويكون عنده سيولة في الدم يعني كلها راح تزيد
بأستثناء الصفائح الدموية لأنها راح تتكسر وتقل عددها

25.HAV transmission

- a. Blood
- b. Body fluid
- c. Sexual contact
- d. Fecal oral

26.HBV transmission

- a. Blood
- b. Body fluid
- c. Sexual contact
- d. ALL

27.HCV transmission

- a. Blood
- b. Body fluid
- c. Sexual contact
- d. Fecal oral
- e. يعني التهاب الكبد الوبائي عندي ثلاث أنواع وكلها واحد منها ينتقل عن طريق
شيء معين
- f. عن طريق الأكل A=
- g. عن طريق الدم وعن طريق سوائل الجسم وعن الطريق الجنس B=

h. C=عن طريق الدم

28. Enterobacter is

- a. Gram-negative cocobacillus
- b. The large negative rod
- c. The small negative rod

صراحة اسفة على جزء المايكرو لانة مدرست مايكرو كان تخصصي كيمياء
حيوية فضيفة جدا في المايكرو بس كنت أحفظها

29. Enterococci are typically arranged in pairs and can not be or difficult differentiated from

- a. Streptococci
- b. Staphylococci
- c. Spirochete
- d. Meningococci

هذا السؤال يقولك نوع يكونون قريبين من بعض لدرجة انهم يصبحون كشيء واحد

وانا عندي نوعين من البكتيريا بكتيريا تترتب على هيئة سبحة وبكتيريا تترتب على هيئة قروب او
عنقودية زي العنب

تكون مرتبة على هيئة سلسلة وقريبة من البعض زي السبحة عشان كذا أخرناها Strepto=chain
في السؤال

النوع الثاني

تكون مرتبة على هيئة العنب عنقودية أو على هيئة قروب Staph=group or cluster

30. Patient comes to the lab. After take meal since two hours the normal level of his glucose is

- a. 100 – 150 mg/dl.
- b. 70 – 110 mg/dl.
- c. 50 – 90 mg/dl.
- d. 100 – 150 gm/l.

هنا يقولك مريض جاء للمستشفى بعد مكان مأخذ وجبة يعني متغذى او متعشى فطبيعي
راح يكون عنده مرتفع شوي يعني هو انسان طبيعي بس جاء وقاس السكر وهو كان
مأخذ وجبة راح يكون وصل تقريبا لل ١٥٠ واهم شيء ننتبه للوحدة

31. Infective stage of Taenia:

- a. Larva
- b. Cercaria
- c. Embryonated egg
- d. **Cysticercus**
- e. Metacercaria

احفظها مهمة مرة مرة

32. Which is most abundant (prevalence)?

- a. **Plasmodium falciparum.** = cerebral
malaria = وحادثة ثانية
- b. P. ovali.
- c. P. malari.
- d. P. vivax.

يعني هذا السؤال لة ثلاث حلول ممكن يجيب أي وحدة منهم احفظ الثلاث
هنا يقولك أيش اللي اكثر شيء في الانتشار راح نختار أول وحدة وهيا خاصة
بمرض الملاريا

35. The person should not have donated blood within the previous

- a. **3 month.**
- b. 5month.
- c. 2 month.
- d. 1year.

هنا يقولك متى يقدر الشخص يتبرع بالدم الشخص ميقدّر يتبرع كل سوي بالدم لازم
يأخذ فترة بين كل تبرع وثلاث شهور كافية لك يتبرع مرة ثانية بالدم

36. Blood grouping antibodies are

- a. IgG
- b. **IgM**
- c. IgE
- d. IgD
- e. IgA

Blood grouping=igm

37. Antibodies associated in Rh.

- a. IgG
- b. IgM
- c. IgE
- d. IgD
- e. IgA

أي سؤال تشوف فيه كلمة ار اتش على طول اختار أي جي جي
يعني
Rh=IgG

38. Congenital Parasites infected human

- a. Entamoeba histolytica
- b. Giardia lamblia
- c. Trypanosoma sp.
- d. Plasmodium malaria
- e. Toxoplasma gondii

هنا يقولك طفيل وراثي يسبب عدوى للإنسان على طول نخنار التوكسو
ومعروف ان هذا الطفيل يسبب اجهاض للمرأة الحامل

39.OO cysts found in

- a. Entamoeba histolytica
- b. Giardia lamblia
- c. Trypanosoma sp.
- d. Plasmodium malaria
- e. Toxoplasma gondii

يقولك اووسايتس اين موجودة

40.Parasite transmitted through blood transfusion **transplacental** transmission or ingested parasite in undercooked meat of infected animal

- a. Entamoeba histolytica
- b. Giardia lamblia
- c. Trypanosoma sp.
- d. Plasmodium malaria
- e. Toxoplasma gondii

شفت الكلمة اللي في السؤال اللي بالأحمر معناها (اختراق المشيمة) واحنا قلنا من قبل ان التوكسو يسبب اجهاض المرأة الحامل يعني يخترق المشيمة يعني اترك السؤال كله بس اعرف اهم كلمة اللي هيا مخططة الأحمر

41.The dog is definitive host

- a. *Echinococcus granulosus* اشينو كوكس قرينلوسس
 - b. *Trypanosoma* sp.
 - c. *Plasmodium malaria*
 - d. *Toxoplasma gondii*.
- هنا يقولك ماهيا الدودة العائل النهائي حقها الكلب

42.Tissue Nematodes

- a. *Entamoeba histolytica*
- b. *Echinococcus granulosus*
- c. *Trypanosoma* sp.
- d. *Trichinella spiralis*
- e. *Toxoplasma gondii*

43.Parasite isolated from sputum

- a. *Paragonium watermani*
- b. *Echinococcus granulosus*
- c. *Trypanosoma* sp.
- d. *Trichinella spiralis*
- e. *Toxoplasma gondii*

هنا يقولك ماهو الطفيل اللي نقدر نعزله ونأخذه من البلغم

44.Parasite cause lung fluke disease

- a. *Trichinella spiralis*
- b. *Echinococcus granulosus*
- c. *Trypanosoma* sp.
- d. *Paragonium westermani*
- e. *Toxoplasma gondii*

هنا يقولك طفيل يسبب امراض في الرئة

واحنا قبل في السؤال قبل قلنا طفيل يعزل ونأخذه من البلغم

يعني نفس الحل اللي موجودة في البلغم هو اللي يسبب امراض الرئة والصدر

45. In emergency treatment of cuts and bleeding if cut is small. We do

- a. Wash with area with soap and water
- b. Apply pressure with a piece of cotton wool
- c. Disinfect the area with skin antiseptic
- d. Cover with a water proof dressing

e. **ALL.**

هنا يقولك حالة طواري كان مقطوع وينزف كيف نعالجها اكد بنسوي كل شيء
نغسل ونضغط على الجرح ونعقم ونغطي راح نختار كلة

47. The first aid you do if chemical injury to the eye

a. **Wash the affected eye quickly**

- b. Seek medical attention
- c. Trans to other place
- d. Call the physician
- e. Immediately rinse the mouth well with water.

هنا يقولك ماهو الأسعاف الأولى للراح تعملوه الشخص انجرح بمادة كيميائية
أي سؤال يجيك بنفس هذه الصيغة ويقولك كلمة فريست ايد يعني الأسعاف الأولى
على طول اختار كلمة ووش

48. The Acidic chemical injury to the eye neutralized with

- a. 5% acetic acid
- b. Boric acid
- c. Magnesium hydroxide
- d. Milk

e. **5% Sodium bicarbonate.**

49. The Alkaline chemical injury to the eye neutralized with

- a. **5% acetic acid**
- b. Boric acid
- c. Magnesium hydroxide
- d. Milk
- e. 5% Sodium bicarbonate.

50. The first aid you do in chemical burns of skin

a. **Wash immediately in running water**

- b. Seek medical attention
- c. Trans to other place
- d. Call the physician
- e. Immediately rinse the mouth well with water.

51. Alkaline skin burn neutralized by

- a. 5% acetic acid
- b. Boric acid
- c. Magnesium hydroxide
- d. Milk
- e. 5% Sodium bicarbonate.

52. Acidic skin Burn neutralized by

- a. 5% acetic acid
- b. Boric acid powder
- c. Magnesium hydroxide
- d. Milk
- e. Sodium bicarbonate powder.

سؤال ٤٨ و ٤٩ و ٥٠ و ٥١ و ٥٢ راح أوضحها ان شاء الله بطريقة سهلة
 في البداية هو أتكلم عن العين والجلد اذا جاء عليها مادة كيميائية كيف نعالجها
 يعني طريقة المعادلة أحنا عارفينها اذا حطينا مادة قلوية وارتفعت نحت حمض
 عشان ننزل درجة القلوية والعكس صحيح
 يعني اذا زادت الحامضية نحت قاعدة عشان نخفف الحامضية
 يارب يكون واضح

في الأسئلة ممكن يقولك العين جاء عليها مادة قلوية كيف نعالجها
 راح نقول راح نحفظ مادة حاضمية
 انت افهم واحفظ
 العين

Acidic====5%sodium bicarbionate

Alkaline or basic==5%acetic acid

خلاص احفظها كذا اذا العين انكب عليها مدة قاعدة ايش نحت واذا انكب عليها مادة
حامضية ايش نحت

الجلد

Acidic=sodium bicarbonate powder

Alkaline or basic==boric acid powder

وممكن يصير حالة ابتلاع لمادة قاعدية أو مادة حامضية ايش نعمل
في حالة الأبتلاع

Acidic==milk+magnesium hydroxide نشرب

Alkaline or basic=lemon+acetic acid نشرب

يارب يكون واضح الشرح

53. The first aid you do in swallowing of an acid or alkali chemical or poisons.

- a. Wash immediately in running water
- b. Seek medical attention
- c. Trans to other place
- d. Call the physician
- e. Immediately rinse the mouth well with water.

احنا قبل قلنا أول منشوف كلمة فرست ايد على طول نختر كلمة ووش يعني غسيل
لكن انتبة اقرا الجملة كاملة احيانا الهيئة تقول ووش بماء بارد واجابة ثانية ووش بماء حار
اكيد راح نختر ووش بماء بادر
فهتمو عليا

54. The first aid you do in swallowing of infected material

- a. Wash immediately in running water
- b. Immediately Seek medical attention
- c. Trans to other place
- d. Call the physician
- e. Immediately rinse the mouth well with water.

هذا سؤال مهم جدا انا قبل قلنتك لكم أي شي بدايته كلمة فرست ايد على طول نختار
ووش صح لكن في هذه الحالة لازم حصل ابتلاع لمادة ملوثة لازم نتصل على
الرعاية الصحية وانا اقولكم ليش منقدر نشرب ماء
لان مادة ملوثة فيها بكتيريا اذا شربنا ماء راح تنمو البكتيريا وتزيد الحالة يعني بس
في حالة ابتلاع مادة ملوثة نتصل في الرعاية الصحية

55. If acid has been Swallowed neutralize by

- a. 5% acetic acid
- b. Boric acid powder
- c. Drinking 8 %Magnesium hydroxide
- d. Milk
- e. **C or D.**

شرحتة فوق

56. If alkali has been swallowed neutralize by

- a. Drinking lemon juice
- b. 1 % acetic acid.
- c. **A or b**
- d. Drinking 8 %Magnesium hydroxide\
- e.
- f. Milk.

شرحتة فوق

57. Taenia saginata diagnostic by

- a. Gravid segment
- b. **Ova in stool** ن شخصها في البيضة اللي في البراز
- c. Cyst
- d. Trophozoite
- e. Larva in stool.

58. Beef tap worm

- a. **T.saginata**
- b. T.solium

- c. Schistosoma hematobium
- d. Entamoeba histolytica
- e. Fasciola hepatica

59. Pork tap worm

- a. T.saginata
- b. T.solium**
- c. Schistosoma hematobium
- d. Entamoeba histolytica
- e. Fasciola hepatica

سؤال ٥٨ و ٥٩

راح أقول طريقة سهلة للحفظ

Beef tap = t.saginata

t.saginata يعني نقول بقرة مسلمة ونختار

Pork tap = t.solium

t>solium يعني نقول خنزير مسيحي ونختار

والله المايكرو يبي كل يوم تعيد اللي حفظتة عشان تحفظ لانة بس حفظ وربى يوفقكم

60. Infective stage in malaria

- a. Cyst
- b. Trophozoite
- c. Ova
- d. Sporozoites**
- e. Larva

الطوري المعدي في الملاريا ماهو

جدا مهم هذا السؤال وممكن يجي بطريقتين

خلاص عرفنا ان الطوري المعدي في الملاريا تقول سبوروزوا

لكن لو قال لي ماهو الطور التشخيصي في الملاريا يعني كيف نشخص الملاريا

نقول

Thick blood film

السؤال يجي كذا

Diagnostic stage of malaria:

هذا هو الحل Thick blood film

61. Balantidium coli in

- a. Stomach
- b. Large intestine**
- c. Small intestine
- d. Liver

في هذا السؤال يقولك أين تعيش هذه الدودة تعيش في الأمعاء الكبيرة مهم تعرف أنها الكبيرة

62. Ancylostoma diagnostic by

- a. Ova in stool**
- b. Larva in stool
- c. Cyst in stool
- d. Trophozoite

يقولك أين نشخص هذه الدودة الحل نشخصها في البيض اللي في البراز والدودة هذي لها اسمين ممكن يغير الاسم ويجب لك اسم أخرى لها

Ancylostoma=hook worm

ووممكن يجيب لم ماهو الطور المعدي لهذه الدودة زي ماقلت قبل شوي كل دودة لها طور معدي وطور تشخيصي مهم تعرف كل واحد لو جاب لك ماهو الطور المعدي لهذه الدودة

Ancylostoma infected=Larva يعني اليرقة

يعني اللي يعدي في هذه الدودة هو اليرقة حقها

63. Fasciola live in

- a. Liver and bile duct**
- b. Pancreas
- c. Stomach
- d. Kidney

يقول أين تعيش هذه الدودة خلاص حفظ

64. Fasciola Diagnostic by

- a. Ova in stool
- b. Larva in stool
- c. Cyst in stool
- d. Trophozoite

65. Infective stage in Fasciola

- a. Larva
- b. Cyst
- c. Metacercaria
- d. Cercaria

66. Naturally occurring stable bacteria that lack a rigid cell wall

- a. Mycobacterium tuberculosis
- b. E.coli
- c. Mycoplasma
- d. Enterobacteriaceae

في هذا السؤال يقول لنا من الطبيعي ان هذه البكتيريا ثابتة ولكن لا يوجد بها جدار خلوي
يعني أول متشوف
Lack cell wall=mycoplasm

67. Gram positive bacteria stained

- a. Dark purple
- b. Yellow
- c. Green
- d. Red

شرحتة من قبل وقلت الغرام موجب جدارها ثقيل والصبغة الأولى اللي راح نحطها
اللي لونها موف راح تمسك فيها وراح يصير لونها موف

لو غير في السؤال وقال

Gram negative

نختار اللون الأحمر

Red

68. Gram negative bacteria may appear as gram positive when

a. Smear is too thick يعني خلينا الشريحة مرة ثقيلة ومفردنا كويس راح يظهر الغرام سالب الخفيف كأنة ثقيل زي الغرام موجب

b. Cell wall damage by antibiotic therapy

c. Over decolorization

d. Use old iodine

e. Smear from old culture

هنا يقول الغرام سالب متى تظهر كانها غرام موجب

احنا لمن نجي نفرد على الشريحة لازم نوزع البكتيريا كويس على السلايد

لكن اذا مفردنا البكتيريا كويس راح تتجمع ونشوفها تحت المجهر كأنها ثقيلة وهيا اصلا خفيفة

يعني لازم نفرد كويس

69. Gram positive organisms may appear as gram negative when

a. Cell wall damage by antibiotic therapy

b. Over decolorization

c. Use old iodine

d. Smear from old culture

e. All.

كل هذه الأشياء ممكن تخرب ومتخلينا نشوف كويس البكتيريا

70. The biochemical test differentiate S.pneumonia from other streptococci

a. Catalase

b. Coagulase

c. Citrate

d. Bile solubility

هنا يقولك ايش الاختبار الخاص بالاستربتو بنيومينا بس ويخليها تختلف عن

الاستربتو الثانية

والحل موجود

71. Biochemical test differentiate between two streptococci group

- a. Catalase
- b. Coagulase
- c. Citrate
- d. Bile solubility

زي السؤال اللي فوق بطريقة أخرى كيف نقدر نفرق بين نوعين زي بعض من الأستربتو

72. Test differentiate staphylococci from streptococci

- a. Catalase
- b. Coagulase
- c. Citrate
- d. Bile solubility

هذا الاختبار يميز الأستاف عن الأستربتو
يعني هذا لأختبار خاص بالأستاف

73. Hydrogene peroxide used in catalase reaction concentration is

- a. 3%
- b. 40%
- c. 100%
- d. 50%

ممکن يجي بعدة طرق نعرف كم تركيزة ونعرف الهيدروجين بيروكسيد يستخدم
في تفاعل الكتيلايز

74. Amino acid used in Indole test

- a. Tryptophane
- b. Cystin
- c. Phenylalanin

d. Serin

يقول ماهو الحامض الأميني اللي نستخدمه في اختبار الأندول
هو التربتوفين

75. Indol production in Indol test detected by

a. Kovak's or Ehrlich reagent

b. Drabkin

c. Fehling

d. All.

مهم احفظ اسمة الكاشف

76. Test used to assist the identification of Enterococci (Enterococcus sp.)

a. Litmus milk decolorization

b. Coagulase

c. Citrate

d. Bile solubility

e. Indole

77. Bacillary dysentery اسهال معناها caused by

a. Shigella قول شوشو خلاص مع كلمة اسهال

b. Cambylobacter

c. Chylamidia

d. Salmonella

أول متشوف كلمة ديسنتري يعني اسهال على طول اختار شيجلي

**78. On MacConkey agar ,shigellan and Salmonella produce colonies
its color is**

a. Colorless بدون لون

b. Red

c. Pink

d. White

يقولك الماكونكي اجار لمن نستخدمه للتفريق بين شيجلي وسلمونلا كيف يكون
لونة نقول بدون لون
لكن لو قال
هذا اسم اجار نستخدمه للتفريق بين شيجلا وسلمونلا XLD
نقول اللي اللي راح يطلع أحمر
يعني
Macconkey=coloress
XLD=red color

79. When immediate delivery to the laboratory is not possible, refrigerate the urine at

- a. 4 – 6 C
- b. 40 C
- c. 1 – 2 C
- d. 2 – 8 C

كم درجة الحرارة اللي نخط فيها البول عشان نحفظه

80. Haemophilus influenza grow well in

- a. Chocolate agar
- b. MacConky
- c. Blood agar
- d. Manitol salt agar

الانفلونزا ايش اسم الأجار اللي تنمو عليه
أنت قول الأنفلونزا تحب الشوكولاتة
أنا حفظتها كذا
انفلونزا=شوكولاتة

81. Blood parasite

- a. Plasmodium sp.=تسبب رض الملاريا
- b. Trypanosoma sp.=تسبب مرض النوم tse tse
- c. Leishmania sp. تنتقل عن طريق sky fly
- d. Filaria sp.=تسبب داء الفيل

e. All.

ايش اسم الطفيليات الموجودة في الدم عاد احفظها كلها واعرفها

82. Media selected for culturing the blood to isolate aerobic organism

a. Columbia agar

b. Blood agar

c. Chocolate agar

d. Nutrient agar

احفظ اهم شيء في نهاية السؤال معزولة هوائية يعني في وجود الأكسجين قول
كولامبيا اجار يعني دولة كولامبيا معزولة هوائية

83. Media is recommended to isolate strict anaerobic organism

a. Thioglycollate broth medium

b. Chocolate agar

c. MacConky

d. Blood agar

e. Manitol salt agar

اللي معزولة لاهوائية في عدم وجود الأكسجين نختار أول وحدة

84. Normal semen Counting النسبة الطبيعية لوجود الحيوان المنوي

a. 20×10^6

b. 200×10^6

c. 10×10^6

d. 50×10^6

85. Normal semen pH

a. 7.2

b. 8.3

c. 4.6

d. 5

البي اتش الطبيعية للسائل المنوي تكون ٧,٢

86. Normal range of ASO test

- a. Up to 200 Iu/ml.
- b. Up to 100 Iu/ml.
- c. Less than 50 mg/dl
- d. 70 – 110 mg/dl.

87. Biochemical test is rapidly and simply performed to detect strepto-pyogenes and enterococcus

- a. **PYR**
- b. Coagulase
- c. Citrate
- d. Bile solubility
- e. Indole

88. Haemophilus influenza cause

- a. Scarlet fever=تسبب هذه الحمى بكتيريا اسمها strepto.pyogens
- b. Q fever=تسببها بكتيريا اسمها coxjella burinti
- c.
- d. **Pneumonia**
- e. Dysentery=تسببها بكتيريا اسمها shegalla
- f.
- g. Trachoma تسببها بكتيريا اسمها Chlamydia
مهم تحفظ كل بكتيريا وايش اسم المرض اللي تسببه
يعني تحصل في السؤال الواحد خمسة اسئلة أخرى

89. In elderly diabetic patients the renal threshold for glucose

- a. **Often raised**
- b. Often decrease
- c. Dos not change
- d. **None.**
يقولك مريض السكري الحد الكلي من السكر غالبا مرتفع
مريض سكري اكيد راح يكون غالبا مرتفع عنده السكري

90. An elevated sodium level is known as

- a. **Hypernatraemia**

- b. Hyponatraemia
- c. Hypercholestremia
- d. Hyperkalaemia

حالة ارتفاع الصوديوم ماذا تسمى هايبر معناها شيء مرتفع
هايبر نيتريميا
Na الصوديوم اختصار
صح يصير خذ
هايبر نيتريميا يعني اول حرفين من اختصار الصوديوم

91. A raised potassium level is known as

- a. Hypernatraemia
- b. Hyponatraemia
- c. Hypercholestremia
- d. Hyperkalaemia

نفس السؤال اللي فوق حالة ارتفاع البوتاسيوم ماذا تسمى نشوف اختصار
Ka البوتاسيوم ايش
يعني نختار أو حرفين من البوتاسيوم
ونقول هايبر كلايميا

92. By using clinical flam photometer sodium and potassium results are displayed in

- a. Mg/dl.
- b. Gm/dl.
- c. Ml/min.
- d. mmHg
- e. Mmol/L.

أول متشوف كلمة فلام فوتو متر راح تختار هذه الوحدة يعني
Flam photometer=Mmol/L

93. which stain most commonly used in microbiology

- a. Leishman stain
- b. Romanosky stain
- c. Gram stain

- d. Gimsa stain
- e. ALL.

ماهيا الصبغة الأكثر الاستخدام في المايكرو أكيد راح تكون صبغة غرام واحنا من أول نعيد ونقول غرام موجب وگران سالب يعني هيا الأكثر استخدام في المايكرو

94. The Rhesus blood group system consists of six genes

- a. Cc,Dd,Ee
- b. Cc,Hh,Aa
- c. Gg,Aa,Cc
- d. Ww,Ff,Cc
- e. Hh,Ss,Qq

IgG احنا قبل أول منشوف اختصار ار اتش نختار
وكمان انواها ستة
سي دي أي كبتل وسمول

95. Hyperglycemic hormones

- a. Amylase
- b. Insulin
- c. Lipase
- d. Glucagon
- e. Trypsin

هذا السؤال مهم في الجسم عنده هرمونين يتحكمون في السكر واحد ينزل السكر وواحد يرفع السكر حسب احتياج الجسم سبحانه الله هرمون الجلوكوجين يخزن الجلوكوز في الكبد وسبحان الله في حالة انخفاض السكر

يتفكك الجلوكوز اللي في الكبد ويرتفع السكر في الدم
glucagon=alpha cells يعني اللي يزود السكر في الدم هرمون

لكن اللي يقلل السكر في الدم هو هرمون الأنسولين
ونوعه بيتا
يعني

Glucagon=hyperglycemic=alpha cell
Insulin=hypo glyceimic=beta cell

96. Hypoglycemic hormones

- a. Amylase
- b. Insulin**
- c. Lipase
- d. Glycogene
- e. Trypsin

97. Herpes simplex virus types

- a. DNA virus
- b. Herpevirus
- c. Human virus
- d. ALL.**

يقولك ايش انواع مرض الهريس راح نختار كلها
لكن ممكن يغير لك في الأختيارات ويجيب لك اختيارات أخرى
اذا جاب لك اختار
DNA أو RNA
راح نختار الذي ان أي لان الفيروسان استحالة تكون موجودة في الأثنين
DNA راح تكون موجودة في

98. A Carbon dioxide enriched atmosphere is required for the growth of

- a. Neisseria gonorrhoeae
- b. Neisseria meningitides
- c. Brucella sp.
- d. Streptococcus pneumonia
- e. All.**

99. A cervical not a vaginal swab is required for the most successful isolation from women's

- a. Trichomonas vaginalis**
- b. N.gonorrhoea
- c. S.hematobium
- d. Ascaris lumbercoid

هذه البكتريا تعيش في رحم المرأة مهم اعرف هالمعلومة

100. The nature of Antibodies

- a. Glycoprotein
- b. Polysaccharide
- c. Lipids
- d. Cardiolipin

ماهيا طبيعة الأجسام المضادة راح تكون جلوكوز+بروتين
يعني جلايكوبروتين

101. Immunoglobulin consists of five parts of Antibodies (Pentamoric).

- a. IgG
- b. IgM
- c. IgD
- d. IgA
- e. IgE

هذا السؤال مهم يقولك لها ٥ أجزاء من الأجسام المضادة راح نختار أي جي ام

لكن لو جاب نفس السؤال وجاب في الاختيارات أي جي ام
نختار

IgE

يعني فهمنا أول شيء نشوف الخيارات اذا فيها أي جي ام نختار اذا كان مش
موجود نختار

IgE

وكمان قلنا قبل اذا شفنا كلمة

Blood grouping=IgM

102. Heparin tube color

- a. Red
- b. Blue
- c. Green
- d. Yellow

أكيد كلنا نتذكر الجهاز حق الكيمستري الأنابيب اللي كنا نستخدمها لونها أخضر
هيا اللي فيها الهيبارين
خلاص

103. In the beta HCG test the result is

- a. MIu/ml
- b. U/L
- c. Mu/L
- d. MIu/dl.

104. The process of pathogenic infection to human

- a. Adherences – Penetration – Multiplication
- b. Penetration – Adherences- Multiplication
- c. Multiplication – Adherences- Penetration

هنا يقولك العملية كيف تصير عشان ينتقل العدوى للانسان أول شيء اكيد
التصاق
اختراق
تضاعف

105. Paul-Bunnell test is positive in:

- a. Multiple myeloma
- b. Hodgkin's disease
- c. Infectious mononucleosis
- d. All of the above

هنا يقولك هذا التحليل متى يعطينا موجب يعني هذا التحليل خاص بشيء معين
اللي هو انفكتو مونو نيكلوسس
EBV وتسبب فيروس اختصاره
KISSING وينتشر هذا المرض عن طريق القبلات

106. In the lab. An individual must wear

- a. Wearing lab coat
- b. Eye glasses
- c. Gloves
- d. ALL

ايش نلبس في المعمل اكيد كل هذه الأشياء

107. Hepatitis virus infect

- a. Kidney

- b. Liver
- c. Stomach
- d. Pancreases

هنا يقولك التهاب الكبد الوبائي يصيب ماذا اكيد الكبد

108. HAV virus transmitted

- a. Blood
- b. Sexually
- c. Feco-oral
- d. ALL

احنا شرحنا من قبل الألتهاب الكبد الوبائي لة ثلاث انواع وكل واحد منهم ينتقل

عن طريق شيء

A= الأكل

تعني فم يعني شيء عن طريق الفم يعني اكيد أكل oral كلمة

109. Normal range of cholesterol

- a. 3 -7.8 mmol/l
- b. 116 – 300 mg/dl.
- c. A and b
- d. 70 – 110 mg/100 ml.

المعدل الطبيعي للكلوسترول

حفظ

110. A good complement fixing antibodies

- a. IgG
- b. IgM
- c. IgD
- d. IgE

هنا يقولك ايش أفضل نوع تثبت

هنا قبل قلنا ان أي جم ام تحتوى على ٥ اجزاء يعني اكيد راح تثبت احسن شيء

يعني الحين فيه ثلاث اختيارات ل أي اج ام

IgM:

1-blood grouping

2- contain 5 parts pentameric

تثبت كويس 3-good fixing

111. Normal plasma clot APTT

- a. 36 – 50 Sec.
- b. 1 – 16 Sec.
- c. 12 – 15 Sec.
- d. 1 – 4 min

112. Normal plasma Prothrombin time (PT)

- a. 36 – 50 Sec.
- b. 11 – 16 Sec.
- c. 12 – 15 Sec.
- d. 1 – 4 min

113. Normal plasma clot Thrombin time (TT).

- a. 36 – 50 Sec.
- b. 11 – 16 Sec.
- c. 12 – 15 Sec.
- d. 1 – 4 min

عاد النسب حفظ

114. EDTA tube color

- a. Red
- b. Blue
- c. Green
- d. Lavender= موف يعني

تتذكرون الأنابيب اللي كنا نشغل عليها في جهاز السب بي سي ايش لونها موف

115. Sodium citrate tube color

- a. Red
- b. Blue
- c. Green
- d. Yellow

تتذكرون هذا السؤال وفي ايش تستخدم قلنا انها مادة مانعة للتجلط تستخدم في

PT

ESR

يارب تكونو متذكرين

وأن لونها أزرق
مهم تربطون المعلومات مع بعض عشان متلخبطون

116. The general blood donor is :

- a. A blood group.
- b. B blood group.
- c. **O blood group.**
- d. AB blood group.

كلنا نعرف ان اكثر دم ونقدر نتبرع فيه للكل هو يعني تشوف كلمة
Blood donor=O blood group

117. The general blood recipient is:

- a. A blood group.
- b. B blood group .
- c. O blood group.
- d. **AB blood group.**

هذا الفصيلة تاخذ من كل انواع الفصائل عشان كذا نقول عنها مستقبل عام تستقبل
كل شيء

يعني

Blood recipient=AB blood group

118. A person with A blood group can receive blood from:

- a. A blood group donor.
- b. B blood group donor.
- c. O blood group donor.
- d. **A and C**

عندنا مريض فصيلة دم أي

ايش ممكن نعطيه دم

اكيد اول خيار نعطيه زي فصيلة دمة يعني أي

وثاني خيار نعطيه او

لان احنا قلنا فصيلة الدم او تعطي كل أنواع الفصائل

يعني لو جاب لنا مريض فصيلة دمة بي ممكن تعطية دم فصيلة بي وممكن
تعطية دم فصيلة أ
يارب يكون واضح

119. Morphological features of *C.diphtheria* are best developed on:

- a. Blood agar.
- b. Blood tellurite agar.
- c. **Loeffler serum slope.**
- d. Chocolate agar

هنا يقولك الدفتيريا ايش الوسط اللي تنمو عليه اختار لوفلر سيروم

120. The following parasite can seen in the blood

- a. Malaria
- b. Filaria
- c. Lishmania
- d. Trypanosoma
- e. **All of the above**

ايش الطفيليات اللي تكون موجودة في الدم قلت من قبل احفظها واحفظ كل واحد
ايش يسبب
وخلص

121. Which of the following does not used in ziehl-nelsen stain?

- a. Carbon fuchsine
- b. Acid alcohol
- c. Methylene blue
- d. Malachite green
- e. **Crystal viole**

ايش هيا الصبغة التي لانستخدمها في صبغة زال نيسلن
اكيد راح اختار كريستا فولت متذكرين لمن شحرت الغرم موجب والغرام سالب
يعني هذي الصبغة نستندمها في صبغة الغرام

122. **Philadelphia** chromosome is a specific chromosomal abnormality that is associated with.

- a. ALL
- b. AML
- c. CML=جمل طريقة للحفظ
- d. None.

كنت أقول عشان احفظها فلادلفيا معها جمل وخلاص
فيلاذلفيا=جمل

123. The two principal **gonadotropins** in vertebrates are

- a. LH
- b. FSH
- c. A and B
- d. ADH

124. Hormones **from cortex**

- a. Thyroxin
- b. Oxytocin
- c. Prolactin
- d. Cortesol

125. A device for measuring the **osmotic** strength of a solution

- a. Osmometer
- b. Spectrophotometer
- c. Flam photometer
- d. ELISA

126. Life Spain of platelets in bags stored at R.T.

- a. 35 day

- b. 41 day
- c. 3 months
- d. 5 day

هنا هذا السؤال مهم يقولك كم فترة حياة الصفائح الدموية في الكيس هيا تعيش بس خمسة ايام في درجة حرارة الغرفة من ٢٢-٢٧ يعني مهم نعرف معلومتين انها تعيش خمسة ايام وانها تعيش في درجة حرارة الغرفة

127. ANA test in the lab. Diagnosis by

- a. PCR
- b. Spectrophotometer
- c. Flam photometer
- d. ELISA

ANA=anti nuclear dieases

أي شيء فايروس او مرض نكشفة عن طريق جهاز الأليزا

128. Cells not contain nucleus.

- a. Erythrocyte=RBC
- b. Leukocyte
- c. Platelets
- d. blast cell

هنا يقولك ايش الخلايا التي لاتحتوي على نواة وهيا معروف كريات الدم الحمراء لاتحتوى على نوية سبحان الله وهذه حكمة من الله معروف ان كريات الدم الحمراء تنقل الهيموجلوبين وسبحان الله ربي جعلها فاضية لك تنقل اقصى شيء من الهيموجلوبين لك يستفيد الجسم من الهيموجلوبين

129. One of the following tests not performed in chemical section in the lab.

- a. Liver enzymes
- b. Hormones
- c. Bowne marrow aspiration
- d. Creatinin

يقولك ايش التحليل اللي منقدر نعمل في جهاز الكيمستري اكيد راح نختار البون مرو يعني

NOT chemical=bone marrow

130. B. cell maturation in

a. Bon marrow

b. Thymus

c. Spleen

d. Liver

وقبل شرحت هذا السؤال بي يعني بي

131. T. cell maturation in

a. Bon marrow

b. Thymus

c. Spleen

d. Liver

زي أول حرف منها تي=تي

132. Which of the following immunoglobulins is present normally in plasma at the highest concentration?

a. IgG

b. IgM

c. IgA

d. IgD

e. أقل شيء موجودة من حيث التركيز IgE

يعني الحين عرفنا معلومتين عنها

IgG

1-Rh

يعني اكثر شيء في التركيز 2-highest concentration

133. Which immunoglobulin is the principal one found in secretions such as milk?

a. IgG

b. IgM

c. IgA

d. IgD

e. IgE

يقولك ايش أنواع المضادات الحيوية اللي مسئولة عن الإفراز زي الحليب والعرق
وكل السوائل في الجسم
secretions=IgA

134. life span of RBCs is

a. 120 days

b. 90

c. 100

d. 30

هنا يقولك كم مدة حياة كرة الدم الحمراء معروف انها تقريبا ثلاث شهور شوية
يعني ١٢٠ يوم

135. Rice watery stool can caused by

a. Salmonella

b. Vibro cholera

c. Shigella

d. E.col

قبل قلنا ايش اللي تسبب الأسهال وقلنا انها شيجلا(شوشو)
يعني شيء يسبب الأسهال اكيد راح يكون في البراز أكرمكم الله
يعني

اخذنا الحين معلومتين

Shagella

تسبب اسهال-1

٢- تكون موجودة في البراز

لكن في هذا السؤال مختلف يقولك ماهيا التي تسبب وتجعل البراز أكرمكم الله مثل لو

الأرز على طول نختار الكولرا

يعني تشوف كلمة

Rice=cholera

136. Human scabies diagnosed by

a. Skin scraping of lesion

- b. Thin blood film
- c. Radiological test
- d. Thin stool film
- e. Serological test of all above

مرض الجرب في الإنسان كيف نشخصة اكيد عن طريق الجلد وراح نختار الأولى
لان فيها كلمة سكين اللي هو الجلد
Skin=الجلد

137. Which the following catheters collect urine specimen in prolonged period

- a. Hard
- b. Soft
- c. Italian
- d. Foley

138. Nutrient agar is

- a. Basic media
 - b. Differential media
 - c. Selective media
 - d. Enriched media
- يعني الأجار المغذي يعتبر اجار اساسي

139. Which of the following parasite cause cerebral malaria

- a. Plasmodium falciparum
- b. Plasmodium vivax
- c. Plasmodium malariae
- d. Plasmodium ovale

قبلنا شرحنا هذا السؤال وقلنا ايش اكثر نوع منتشر وهنا ممكن يجي بعدة طرق

140. Albert stain is used to diagnose

- a. Mycobacterium tuberculosis
- b. Mycoplasma

c. Enterobacteriaceae

d. **Corynebacterium diphtheria**

الحين عرفنا معلوماتين عن الدفتيريا لازم تحفظها زي اسمك
عرفنا الوسط اللي نزرع فيه وفي هذا السؤال نعرف الصبغة اللي تتصبغ فيها
الدفتيريا

هذا الوسك خاص بالدفتيريا 1-loffler serum

هذا اسم الصبغة الخاص بالدفتيريا 2- albert stain

مهم تعرف وتحفظ وتفهم وتربط

141. Which of the following transmit the malaria

a. Male anopheles mosquito

b. **Female anopheles mosquito**

c. Sand fly= راح يجي سؤال عنها بعدين

d. Tse tse fly leishmania ايش اللي يسببها اسمها

هنا يقولك عن طريق ايش تنتقل الملاريا لازم تعرف ان الأنثى هيا التي تنتقل
المرض وليس الذكر مهم

142. In potential diabetic patient, the confirming test used is

a. Random blood sugar

b. Fasting blood sugar

c. **Oral blood sugar tolerance**

d. All of the above

يقولك هنا عندنا انسان مريض ونبي نتأكد هل عنده سكر أم لا ايش التحليل اللي

نعمله عشان نتأكد انه عنده سكر أو لا

التحليل هو ان أول شيء نعمل تحليل للمريض وهو صائم وبعدين نعطيه جلوكوز

يأكله وبعد ساعتين تقريبا نقيس السكر مرة ثانية بعد مأكّل الجلوكوز

عشان كذا اخترنا الاجابة هذي

143. Which of the following organism oxidase positive

a. Psedomonas only

b. Nessleria only

c. E.coli

d. **Psedomonas & nessleria**

144. Normal reticulocyte in adult is

- a. 0.2 – 0.5 %
- b. 2 – 5 %
- c. 0.2 – 2 %
- d. 1 – 2 %

مهم هذا السؤال وقبل شرحنا ايش معنى

Reticulocytes= يعني كريات دم حمراء غير ناضجة

يعني راح يكون فيه انيميا

وفي هذا السؤال يقولك كم معدلها يعني هي تكون من الطبيعي موجودة بس بنسبة

مرة مرة قليلة اذا زادت اعرف انوة فيه مرض

الحين يقولك كم نسبتها الطبيعية

مهم هذا السؤال

145. Which of the following leukocyte responsible for parasitic & allergic reaction

- a. Lymphocyte

- b. Neutrophile= قلنا قبل انها ترتفع في حالى العدوى بالبكتيريا وان نسبتها من ٤٠% الى ٧٥% acute bacteria infection
- c. Monocyte
- d. Basophileالتهاب قلنا قبل انها ترتفع في حالة الالتهاب
- e. Eosinophile
يعني احفظ وافهم وأربط وقول
ترتفع هذه النوع في حالات معينة وقول
Neutrophils=acute bacteria infection
Basophils=hypersensitivity and inflammatory
Eosinophile= parasitic and allergic

146. which of the following produce by staph.auerus & not produced by other staph

- a. DNA produce
- b. Coagulase
- c. Catalase
- d. Ureaase

هذا شيء مميز للستاف يريز محد ينتجة من الأنواع الأخرى من الأستاف

147. Which of following organs participate in billrubin?

- a. Heart
- b. Kidney
- c. Pancrease
- d. Liver

مادة الصفراء البلبين اكيد راح تكون في الكبد

148. In emergency case which of the following test do for glucose

- a. Fast blood sugar
- b. Random blood sugar
- c. Oral blood sugar tolerance
- d. Post prandial blood sugar

اذا جاتنا حالة طارئة حادث اغماء أي شيء
ايش هو التحليل اللي راح نعمله عشان نقيس السكر
اكيد راح يكون تحليل عشوائي

149. Deficiency in folate & vitamin B12 cause

a. Megaloblastic Anemia

b. Liver cirrhosis

c. Kidney failure

d. Kala azar

نقص الفوليت وفيتامين بي ١٢ يسبب
انيميا وميغالو بلاستك

لكن لو جاب سؤال وقلك نقص فيتامين بي ١٢ لوحدة ايش يسبب نقول انيميا حادة
تسبب يعني

Deficiency of B12 cause pernicious

150. Which of the following organism **are capsulated**?

a. E.coli

b. Salmonella

c. Klebsiella

151. Genital disease can caused by the following

a. Gonorrhea only

b. Trichomonas only

c. Gonorrhea & trichomonas

d. Non of the above

هذا السؤال يقولك ماهو المرض التنسايلى ايش اللي يسببة احفظ اسم هالشئين
واعرف انهم مرتبطين بالأمراض التناسلية

152. Which of the following immunoglobulin have four molecules?

a. IgG

b. IgE

c. IgA

d. IgM

قل قبلنا لو قللك يحتي على خمس اجزاء نختار أي جي ام
وحتى كمان لو قللك اربع اجزاء نختاري أي جي ام
يعني
4 or 5 parts=IgM

153. Which of the following gram negative rod cause dysentery?

- a. E.coli
- b. Salmonella
- c. Shigella
- d. Staph.aureus

خلاص فهمت ايش اللي يسبب الأسهال هيا الشوشو

154. Immunoglobulin produced by

- a. Fat cell
- b. Mast cell
- c. Plasma cell

هنا يقولك المضادات الحيوية من اين تنتج
من خلايا البلازما

155. Which of the following is true?

- a. RH-ve person safely donate for person RH+ve person
- b. RH+ve person safely donate for person RH-ve person
- c. A blood group person donate for B group person
- d. All of the above

هنا راح نتكلم عن عملية نقل الدم خلاص فهمنا الحين
A اذا عندي مريض دمة
O و A ممكن اعطية دم فصيلة

B واذا عندي مريض فصيلة دمة
O و B ممطن اعطية دم فصيلة

AB واذا عندي مريض فصيلة دمة
ممكن اعطية دم فصيلة
A

B
AB
O

O وإذا عندي مريض فصيلة دمة
O مقدر اعطية دم غير نفس الفصيلة

ومعروف انه فصيلة الدم تكون يا موجب يا سالب صح

لو كان عندي مريض فصيلة دمة موجب ومحصلت غير دم سالب عادي ممكن
اعطية سالب
لكن لو كان عندي مريض دمة سالب لا أستطيع لا أستطيع ان اعطية موجب
فهنا
يعني الموجب يقدر ياخذ دمة سالب
بس السالب ميقدر ياخذ دم موجب
يارب وضحت

156. which of the following organ excrete the uric acid

- a. kidney
 - b. Pancreas
 - c. Stomach
 - d. Liver
- واضح

157. Which of the following can't donate blood

- a. Person have Hb>13 mg/dl
- b. Woman is pregnant
- c. Person free from syphilis
- d. ALL

من الشخص الي لا يستطيع التبرع بالدم اكيد المرأة الحامل لا تستطيع التبرع بالدم

158. Which of the following transmitted through blood transfusion

- a. Malaria
- b. Aids

c. Cytomegalovirus (CMV)

d. All of the above

ايش الأمراض اللي تنتقل عن طريق نقل الدم اكيد كلة
يعني اخذنا دم من مريض معة كل الأمراض اكيد كل الأمراض اللي عنده بتصير
عندي

159. If infant has Rh+ve & mother RH-ve must give

a. Anti-D immunoglobulin

b. Anti-E immunoglobulin

c. Anti-C immunoglobulin

d. Anti-e immunoglobulin

e. Anti-c immunoglobulin

160. Migration of protein in electrophoresis depend on

a. Weight of component only

b. Charge of component only

c. Shape size of component

d. Weight & charge of component

e. All of the above

161. Transmit through sexual intercourse

a. Tricurus tricura

b. N.gonorrhoea& Trichomonas vaginalis

c. Sternglyoids stercuralis

d. S.hematobium

e. Ascaris lumbercoid

شرحنا هذا السؤال من قبل وقلنا ايش اللي تنتقل عن طريق الأمراض التناسلية

162. In the 1923, Alexander flaming discovered the penicillin from

a. Penecillium sp

b. Candida sp

c. Aspirigulus s

d. Streptococci

163. Red blood cell synthesis in bone marrow from

- a. Fate cell
- b. Cord cell
- c. Myeloid cell
- d. Stem cells

اين تتصنع كريات الدم الحمراء في الأستام سل
يعني

Stem cell=synthesis of RBC

164. Leukemia characterized by a greatly increased in leukocyte count

- a. ALL
- b. AML
- c. CML
- d. None.

مرض اللوكيميا ايش اكثر شيء مرتفع قول الجمل وخلص

165. Platelets synthesis in bone marrow from

- a. Fate cell
- b. Cord cell
- c. Myeloid cell
- d. Megakaryocyte

يقولك الصفائح الدموية أين تتصنع
فرق بينها وبين كريات الدم الحمراء

166. Granulocytic leukemia

- a. ALL
- b. AML
- c. CML
- d. None.

167. In Pregnancy test we measure

- a. LDH
- b. Estrogen
- c. α HCG
- d. Bhcg

هنا يقولك لمن المرأة حامل ايش نقيس نقيس البيئات وركز

168. The cause of chaga's disease:

- a. Trypanosoma gambiense
- b. Trypanosoma rhodesiense
- c. Trypanosoma cruzi
- d. Leishmania braziliense

والله اتذكر أول سؤال جاني في الهيئة وبنفس الصيغة وكل شيء

169. Normal range of uric acid?

- a. 2-5 mg/dl.
- b. 3-7
- c. 5-10
- d. 70 -110 mg/dl

170. Normal range of cholesterol?

- a. 140-200 mg/dl
- b. 50-130 mg/dl.
- c. 100-190 mg/dl
- d. 70-110mg/dl

171. Which of the following happen in prolonged fast

- a. Keton in urine
- b. Hyperglycemia
- c. Hypocholesteremia

لمن نأخذ فترة طويلة واحنا صائمين او في حالة المجاعات ايش يصير
يتكون الكيتون او الأستون في البول

172. Infective stage of S.mansoni

- a. Embryonated egg
- b. Larva
- c. **Cercaia**
- d. Oocyst

173. Which of the following produce by staph.aureus & not produced by other staph?

- a. DNAase produce
- b. **Coagulase**
- c. Catalase
- d. Citrate

174. The **Urease test done to diagnostic of**

- a. S.pyogen
- b. S. aureus
- c. **Proteus**
- d. E.coli

175. The cause of sleeping sickness:

- a. Trypanosoma gambiense
- b. Trypanosoma cruzi
- c. Trypanosoma rhodesiense
- d. **(a) & (c)**

176. Cause Kala- azar:

- a. leishmania tropica
- b. leishmania braziliense
- c. leishmania donovani
- d. leishmania Mexicana

177. Cause oriental sore:

- a. Plasmodium ovale
- b. Leishmania tropica
- c. **Leishmania donovani**
- d. Trypanosome rhodesiense

178. one of the following test use in myocardial

- a. **ck-mb**
 - b. Creatinin clearance
 - c. sGPT
 - d. sGOt
- تحليل خاص بالقلب اكيد السي كي

179. Adrenal gland upside of?

- a. Liver
- b. **Kidney**
- c. Brain
- d. Heart

180. Eosinphil raised in the following except?

- a. Allergic
- b. Parasitic disease
- c. Hodgkin disease
- d. **Bacterial disease**

كل هذه الحالات ترتفع فيها الايسنوفيل ماعدا
اكيد راح اختار البكتيريا لان اللي يرتفع في البكتيريا النيترو فيل

181. The Lowest rang of platelets'

- a. 450.000
- b. **150.000**
- c. 75.000

المعدل حق الصفائح المودة من
٤٥٠,٠٠٠ — ١٥٠,٠٠٠

وهو هنا يقولك اقل معدل لها يعني اكيد راح اختار مية وخمسية الف
وقبل قلنا عن الصفائح الدموية ان نقدر نحفظها لمدة خمس ايام وفي درجة حرارة الغرفة

182. Factor II of blood clotting is:

- a. Christmas factor
- b. Fibrinogen
- c. **Prothrombin**
- d. Thromboplastin

183. Factor I of blood clotting is:

- a. Christmas factor
- b. Fibrinogen**
- c. Prothrombin
- d. Thromboplastin

يعني العامل الأول هو الفايبرينوجين
والعامل الثاني هو البروثرومبين

184. One of the intrinsic pathways

- a. Factor XI**
- b. Factor XIII
- c. Factor I
- d. Factor VII

العامل الداخلي رقمة ١١
معناها عشر أرقام X=
ونضيف عليها واحد صارت ١١
يعني العامل الداخلي ١١

185. Test for Intrinsic pathway:

- a. Bleeding time
- b. Thrombin time
- c. Prothrombin time
- d. Partial thromboplastin time PTT**

186. Infectious mononucleosis is caused by:

- a. Echo virus
- b. Coxsaki virus
- c. Epstein Barr virus EBV**
- d. Cytomegalo virus

187. Factors present only in Extrinsic Pathway

- a. Factor XI
- b. Factor XIII
- c. Factor I
- d. Factor VII**

العامل الخارجي سبعة

معناها خمسة=V
نضيف عليها اثنين تصير سبعة

188. Malaria diagnosis by

- a. Thick blood film
- b. Thin blood film
- c. Skin scraping
- d. X-ray

شرح من قبل

189. Taenia saginata diagnosis by

- a. Egg in stool
- b. Egg in Urine
- c. Larva
- d. Cystecercus

190. Ascaris lumbricoides infection stage

- a. Embroynated egg in stool
- b. Trophozoit
- c. Cyst
- d. Larva

191. Biochemistry test used sample except

- a. Urine.
- b. Whole blood
- c. Serum
- d. Stool
- e. Bone marrow aspiration

192. Which if the following leukocyte normally not found in blood film?

- a. Basophile
- b. Monocyte
- c. Lymphocyte
- d. Neutrophils
- e. Eosinoph\

شرحة من قبل أي سؤال تركتة فوق شرحة من قبل

193. The contamination of lens of microscope which cause eye infection?

- a. B. anthrax
- b. S.pyogenes
- c. Staph.aureus
- d. Clostridium tetani

هنا يقول ايش اسم اللي تلوث العدسة حقت المايكروسكوب وتأذي العين أحفظها

194. Pathogens can enter the body through?

- a. Dry skin
- b. Wet skin
- c. Unbroken skin
- d. Scratch skin

كيف الطفيل يدخل للجسم اكيد عن طريق الجرح المجروح وخلص

195. In ABO the anti A container color?

- a. Yellow
- b. Blue
- c. Red
- d. Colorless

196. In ABO the anti B container color?

- a. Yellow
- b. Blue
- c. Red
- d. Colorless

197. In ABO the Rh container color?

- a. Yellow
- b. Blue
- c. Red
- d. Colorless

كلنا نتذكر لمن عملنا نوع الفصيلة ايش نستخدم

A= لونة أزرق

B= لونة أصفر

RH= ليس له لون

اكيد متذكرين

198. The Normal range of HDL

- a. 50- 80
- b. 70-100
- c. 100-150

199. Urine samples culture in

- a. CLED ager and Blood agar.
- b. CLED agar
- c. MacConky agar
- d. XLD

200. Which of the following is a gram positive rod?

- a. Corynebacterium onlya
- b. Listeria only
- c. A and B
- d. Shigella
- e. E.coli

201. What of the following is TRUE about *Bacillus anthracis*?

- a. Causes anthrax disease
- b. Gram positive
- c. H₂S

202. Yellow brown barrel-shaped egg, colorless producing plug polar

- a. Ascaris
- b. Tenia soliom
- c. *Trichuris trichiura*
- d. Entamoeba hcaistolyti

لو جاب لك نفس هذا السؤال بس جاب بس لك رأس السؤال
يعني يقولك

Yellow brown=ascaris

203. MCV measuring Unit

- a. FL (Fimtolitre)
- b. Pg (Picogram)
- c. g/l
- d. Mg/dl.

204. MCH measuring Unit

- a. FL (Fimtolitre)
- b. Pg (Picogram)
- c. g/l
- d. mg/dl.

205. MCHC measuring Unit

- a. FL (Fimtolitre)
- b. Pg (Picogram)
- c. g/l
- d. Mg/dl.

206. More abundant leukocyte

- a. Basophile
- b. Monocyte
- c. Lymphocyte
- d. Neutrophils
- e. Eosinoph

207. ELEK test use for

- a. Neisseria
- b. Diphtheria
- c. Brodella
- d. Proteus

الحين عرفنا ثلاث معلومات عن الدفتيريا

1- اسم الصبغة حققتها albert stain

2- وعرفنا اسم الوسط اللي تنمو فيه Loeffler serum

3- وعرفنا اسم الاختبار حقها اسمة elek test

208. To detect CMV

- a. Spectrophotometer
- b. Flam photometer
- c. ELISA
- d. Microscope

أي شيء فايروس نكشفة طريق جهاز الاليزا

209. Gram positive stained more easy than gram negative because

- a. Gram -ve cell wall is thin while gram +ve is thick
- b. Gram +ve cell wall is thin while gram -ve is thick
- c. Gram -ve cell wall Contain more peptidoglycan
- d. ALL

قلنا قبل ان الغرام موجب ثقيل وان الغرام سالب خفيف

210. To detect AML we use

- a. Sudan black
- b. Gimsa stain
- c. Field stain
- d. Leishman stain

يعني قول امل مع السودان

211. Flask shape parasite is

- a. Giardia lambilia
- b. E. Histolica
- c. Malaria
- d. Filaria

هنا يقولك ايش الطفيل اللي شكلة على هيئة الفلاسك

212. Hemophilia A & B are defected in

- a. X- linked dominant
- b. X-linked recessive
- c. Y linked dominant
- d. Y linked recessive

213. Gondotropic hormone

- a. LH
- b. ADH
- c. Estrogen

214. Action of Neutrophil is

- a. Antibody production
- b. Antibody reaction
- c. Granule circulation
- d. IG production

215. Parasite in urine

- a. Schistosoma heamatobium
 - b. Malaria.
 - c. Leishmania
 - d. Toxoplasmosis
- الطفيل الموجود في البول ايش اسمه

216. XLD media

- a. Selective=اختياري يعني
- b. Diferentiat
- c. Basic
- d. Enriched

217. Best media for sputum culture

- a. Blood agar and chocolate
- b. MaCconky
- c. CLED
- d. Manitol salt agar

218. HbA1C for

- a. 1-2 Weeks
- b. 2-4 Weeks

c. 4-6 Weeks

d. 6- 8 Weeks

219. One test in the following can diagnose anemia :

a. CBC

b. PT

c. PTT

d. Platelets

e. Leukocyte

ايش اسم الاختبار اللي نحدد عن طريقة هل المريض عنده انيميا أو لا
راح نقول اكيد السي بي سي

220. Westrgren test used for

a. ESR

b. HB

c. AG-AB reaction

d. PT

221. The following test do in chemical lab except

a. CBC

b. Creatinin

c. sGPT

d. Uric acid

222. Can growth in aeorobic and anaeorobic except

a. Clostridium

b. Salmonella

c. Shigella

d. E.col

e. Haemophillus

f. Lactobacilus

هنا يقولك بعضها هوائي وغير هوائي يعني تجمع الصفتين باستثناء
الكولستريدم معروف انها غير هوائية اجبارية يعني لو شمت الأكسجين تموت

223. Salmonella transmitted via

- a. Blood transfusion
- b. Sexual
- c. Ingestion contaminated food
- d. Inhalation

السالمونلا تنتقل عن طريق الأكل

224. Bacteria cause Pharyngitis

- a. Staph. aureus
- b. Diphtheria
- c. TB
- d. Streptococcus pyogenes

225. All are true about platelet except

- a. Can save for 7 days when added special fluid
- b. Can save for 5 days when added special fluid
- c. Defect cause prolonged bleeding time
- d. Normal 150,00 – 450,000

قلنا قبل ان الصفائح الدموية نحتفظ فيها في خمس ايام بس

226. If blood clot occur that is called

- a. Hemolysis
- b. Blood coagulation
- c. Thrombosis
- d. Purification

اذا الدم تجلط ايش نسمة يعني اسم آخر لة

227. Substance can not trans and absorbed without a factor

- a. Iron
- b. Vitamin B12
- c. Folic acid
- d. Vitamin A

هنا يقولك ايش المادة التي لا تنتقل الا في وجود عوامل طبعيا هيا فيتامين بي ١٢

228. The main site of production of ATP in the cell is the

- a. Cell wall
- b. Cell membrane
- c. Cytoplasm
- d. Mitochondria

أكثر مكان ينتج الطاقة هيا الميتوكوندريا

229. Lactobacilli isolated in

- a. Throat swab
- b. Ear
- c. Urine
- d. Stool

230. Number of bonds in Antibodies

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

231. Antibodies contain four IG

- a. Ig M
- b. Ig A
- c. Ig D
- d. IgE
- e. IgG

232. We can diagnose W.bancrofti by investigate

- a. Blood smear
- b. Urine Exam.
- c. A and B
- d. Stool smear

233. Which organisms cause syphilis

- a. Chlostridium
- b. Salmonella

- c. Shigella
- d. T.palidium
- e. Haemophillus

234. Which one of the following is not an anticoagulant?

- a. Heparin
- b. Citrate
- c. Phosphate
- d. EDTA
- e. Floride

235. Prolonged bleeding time commonly occurs in

- a. Defect PT
- b. Defect PTT
- c. Reduction Platelets number
- d. Reduction W.BC.
- e. ALL

236. Permanent deferral of a donor occurs in

- a. Hepatitis
- b. AIDS
- c. A and B
- d. Mumps
- e. Rubella

مين هو الشخص الي يمنع بتاتا من التبرع بالدم اكيد الشخص اللي عنده ايدز
وعنده التهاب كبد وبائي

237. A chronic carrier state may occur in

- a. HBV
- b. AIDS
- c. E.coli
- d. Mumps
- e. Rubella

238. A pheresis is the collection of

- a. CSF
- b. Bone marrow aspiration
- c. Blood component
- d. 24 h. urine

239. Primary homeostasis

- a. Platelets adhesion (Plug)
- b. RBCs destruction
- c. W.B.Cs formation
- d. Prothrombin time

240. Glucose-6-phosphate enzymes are present in

- a. W.B.Cs
- b. Erythrocyte
- c. Plasma
- d. Platelets

241. *Bordetella pertussis* is the cause of

- e. Scarlet fever
- a. Whooping cough
- b. Rheumatic fever
- c. Pneumonia

242. Which of the following media is not selective?

- a. Nutrient agar
- b. XLD media
- c. MaCconky
- d. Blood agar

243. Blood collected on plain tube (without anticoagulant) must

- a. Be incubate at 37c for 30 min

- b. Not be clotted
- c. Be hemolysed
- d. Be mixed

244. HIV or human immunodeficiency:

a. Aids

- b. Hepatitis C
- c. Hepatitis B
- d. Hepatitis A

نقص المناعة المكتسبة ايش اسمه اكيد هو الأيدز

245. The all ABO group true except:

- a. AB group transfusion only to person AB
- b. A group transfusion to group A and O group
- c. O group can transfusion into person have A and B and O group

d. O group the contain both Antigen A and B

معروف ان فصيلة الدم او لا تحتوي على أي أنتيجين
بل تحتوي على أنتي بودي نوعين
يعني

O= contain antibody A and anti body B

NOT contain any antigen

246. Platelet normal range:-

- a. $100 \times 10(12)$
- b. $20 \times 10(9)$
- c. $100 \times 10(9)$
- d. $1000 \times 10(9)$

247. The gram stains use for:

a. Mycobacterium = ziele nelsen اسم الصبغة حققتها

b. Borrelia

c. Diptheria = albert stain اسم الصبغة حققتها

d. E.coli تنصبغ بالغرام عشان كذا اخترناها

الحين كل شيء لة صبغة معينة وبعض البكتيريا تكون لها صبغة لوحدها طيب

راح اكتب كل وحدة ايش صبغتها وتنحفظ

248. All component of blood except:

- a. Platelet
- b. Red cells and white
- c. Plasma
- d. Cell wall

هنا يقولك جميع هذه الأشياء من مكونات الدم ماعدا

طبعا الجدار الخلوي هو الحل

يعني الدم نعرف ايش مكوناته صفائح دموية وكريات دم حمراء وكريات دم بيضاء يعني الغلط هيا الجدار الخلوي

249. Can transfusion from blood:

- a. Whole blood
- b. Platelets
- c. Red cells and white cells
- d. All the above

احنا لمن نجي ننقل دم ايش ننقل مع الدم اكيد ننقل كل شيء

250. The general Trans O group to:

- a. A group
- b. B group
- c. O group
- d. ALL groups

O معروف من قبل ان فصيلة الدم

تعطيا لكل انواع الدم الأخرى يعني تعتبر ناقل عام يعني ننقله لكل فصائل الدم

251. Thrombocytopenia sees in:

- a. Megaloplastic anemia
- b. APlastic anemia
- c. Iron deficiency

d. Pernicious anemia

252. G6PD is enzyme formation in:

a. Muscle

b. Brain

c. Liver

d. All above

مكان تصنيع هذا الأنزيم في الكبد

253. ESR measured

a. Millimeters

b. Centimeter

c. Milligram

d. Dl.

هنا يقولك الأسير ايش الوحدة اللي يقاس فيها ملي متر

254. The Thrombopoietin synthesis in:

a. Liver

b. Kidney

c. A and B

d. Thymus

255. Which from the following NOT include in cell wall of bacteria:

a. Pilli.

b. Cell membrane.

c. Flagella.

d. Definite nucleus

هنا يقولك ايش المادة اللي تعتبر غير موجودة في الجدار الخلوي حق البكتيريا

كلنا نعرف ان البكتيريا بدائية النواة يعني مفيها انوة يصير نختار النواة

كلنا نعرف الكائنات بدائية النواة اللي مافيها نواة زي البكتيريا

والكائنات حقيقية النواة اللي فيها بكتيريا

واضح

256. Hyperparathyroidism hormone cause:

a. Increase calcium

b. Decrease calcium

c. Not affected

في هذا السؤال يقول لمن يرتفع هرمون الغدة الجار درقية ايش اللي يرتفع معه
اكيد الكالسيوم
يعني احفظ قول ارتفاع الغدة الجار درقية يزيد الكالسيوم

257. Strong antigen:

a. Vitamin

b. Carbohydrate

c. **Proteins**

d. Glycoprotein

هنا يقولك الأنتجين القوي من ايش مصنوع اكيد من البروتين
وقلنا سؤال قبل الأنتي بدي مصنوعة من ايش من غلايكو بروتين يعني
Antibody=glycoprotines
Antigen=protine
افهم واربط

258. ANA is:

a. Allergy

b. Sideroblastic anemia

c. Graft-rejection

d. **Autoimmune disease**

هنا يقولك اختصار المرض ويقولك مانوع هذا المرض
ANA=anti nuclear disease
ويعتبر مرض ذاتي
وعرفنا قبل انا نقدر نقيسة عن طريق جهاز الأليزا

259. The myeloid leukemia is:

a. **High the leukocyte**

b. low the leukocyte

c. Normal leukocyte

عندنا مرض اكيد راح ترتفع كريات الدم البيضاء عشان تدافع

260. Optichin test for :

a. Streptococci pyogene

b. Streptococci pneumonia

c. Streptococci agalatia

هنا يقولك هذا الاختبار خاص بأيش
خاص بالأنيومينيا

261. Tania saginate transmission:

a. Ingestion beef meet

b. Ingestion pork meet

c. Sexual

d. Feco-oral

قبل قلنا فية نوعين لاتينيا وحدة مسملة اللي هي البقرة
وحدة مسيحية اللي هي الخنزير
وخلص حفظناها قبل

262. Wuchereria Bancrofti diagnose:

a. Microscopic examination of blood smears

b. Microscopic examination of concentrated urine

c. Microscopic examination of stool smear

d. Microscopic examination of blood or urine smears

هذا السؤال انشرح من قبل وقلنا داء الفيل نستطيع تشخيصه في الدم وفي البول

263. Malaria detection

a. Blood smear

b. Urine

c. Body fluid

d. Stool

المالريا نستطيع تشخيصه في الدم

264. Enterbactericea can infection in:

a. Urinary tract only

b. Steam blood-urinary tract- chest

c. Gastrointestinal disease only

d. Urinary tract - Gastrointestinal disease

هنا يقولك هذه البكتريا تؤثر على ايش تؤثر على
القناة البولية والقناة الهضمية

265. All the following are Enterbacterice except

- a. E.coli - Shigella
- b. Klebsiella - Serratia
- c. Proteus – Enterobacter
- d. Citerobacter – salmonella
- e. cambylobacter

266. Hb account for 96% is consisting of:

- a. 3 α chains and 2 γ chains
- b. 2 α chains and 2 β chains
- c. 2 α chains and 2 δ chains
- d. 2 α chains and 3 δ chains

قبل شرحنا هذا السؤال وقلنا انواع الهيمو جلوبيين وقلنا اللي موجود في الناس
البالغة وكم نسبة ومن ايش يتكون

267. In The Elisa light produced from:

- a. Conjugate only
- b. substrate only
- c. conjugate and substrate
- d. Buffer

268. Pancreatic enzyme

- a. Insulin
- b. Creatine
- c. Glucose
- d. Amylase

ركز في هذا السؤال يقولك يعتبر من انزيمات البنكرياس هو طبعا الأميليز

269. In the formol-ether technique the parasite found in:

- a. ether layer
- b. formol layer
- c. sediment=الراسب

d. Fecal deprise

في هذا السؤال تقريبا يولك البويضات حقت الطفيل وين تكون موجودة
اكيد راح تكون موجودة في الراسب

270. Normocytic Normochromic anemia found in

- a. Pernicious anemia
- b. Megaloplastic anemia
- c. a **plastic anemia**
- d. iron deficiency

271. One is always non motile gram negative rods:

- a. Haemophilus Influenza
- b. **Shigella**
- c. E.coli
- d. Salmonella
- e. Bordetella Pertusis

الحين عرفنا معلومتين عن الشيغلا
انها تسبب مرض الأسهال وتكون موجودة في البراز
وانها غير متحركة

272. One is motile gram –ve rods:

- a. Haemophilus Influenza
- b. Bacillus anthracis
- c. **Pseudomonas aerogenes**
- d. Vibrio cholera

تعتبر غرام سالب وعصوية ومتحركة

273. Neonatal jaundice is

- a. Hemolytic jaundice
- b. Obstructive jaundice
- c. Hepatic jaundice
- d. **Normal jaundice**

هنا يقولك الصفرة اللي تطلع في المواليد ايش نوعها طبعا نوعها طبيعي
لان سبحانه الله لمن نجي نعمل تحليل للطفل النونو نحصل مادة الصفراء مرتفعة
عنده يعني شيء طبيعي

274. The blood cells that play a major role in preventing infection of the body are

- a. Erythrocyte
- b. Leukocyte=WBC
- c. Platelets
- d. Blast Cells

طبعا كلنا نعرف لمن جسمنا تجية عدوى ايش هيا الخلايا اللي تدافع عن الجسم
اكيد كريات الدم البيضاء

275. The dimeric Antibodies is

- a. IgG
- b. IgM
- c. IgE
- d. IgD
- e. IgA

IgA الحين يقولك ايش المضاد الحيوي اللي يعتبر ثاني هو
IgA يعني الحين عرفنا معلومتين عن
Secretion انها تختص بالأفراز-1
وانها ثائية -2
خلاص واضح

276. All of the following are gram positive rods except

- a. Bacillus
- b. Mycobacterium
- c. Lactobacillus
- d. Listeria
- e. Corynebacterium
- f. Clostridium
- g. Stepto and staph

277. Morphology of Candida albicans is

- a. White, Cream colonies=لونها مسعمرات كريمية اللون
- b. Red colonies
- c. Yellow Colonies

d. Pink colonies

278. Staph aureus can be differentiate from strepto pyogenes because it

- a. Contain Catalase enzyme
- b. Contain Coagulase enzyme
- c. Contain urease enzyme
- d. Contain Citrate enzyme

279. Which of the following of immunoglobulin inflexible:

- a. IgG
- b. Ig M
- c. Ig A
- d. Ig D
- e. IgE

هنا يقولك ايش المضاد الحيوي اللي يتغير غير ثابت

280. Hypocalcaemia in patient occur if the level of calcium is:

- a. 16
- b. 12
- c. 10
- d. 7.5

مصطلح هايپو كالسيوم يعني انخفاض في الكالسيوم بس يقولك متى نقول ان الكالسيوم صار منخفض اذا صار اقل من سبعة ونصف نقول انا صار منخفض ودخل في حالة الهايپو كالسيوم

281. One test in the following can diagnose iron deficiency:

- a. CBC
- b. Cretinin
- c. sGPT
- d. Uric acid

كيف نعرف ان المريض عنده نقص حديد في الدم اكيد عن طريق جهاز السي بي سي

282. The maximum store of the platelet is :

- a. 35 days
- b. 7 days
- c. 5 days
- d. 120

شرح من قبل

283. In agglutination test the antigen used is:

- a. Soluble
- b. Insoluble
- c. All of the above
- d. Non of the above

هنا يقولك في اختبار التجلط الانتجين ايش راح يكون اكيد راح يكون ذائب وخلص

284. Which of the following tubes used in serology tests :

- a. Plan tube
- b. EDTA tube
- c. Heparin tube
- d. Lavender tube
- e. Green tube

هنا يقولك الأنبوب اللي نستخدمه في اختبار السيرولوجي ايش راح يكون لونة

قلنا من قبل

في الكيمياء لونها أخضر

وفي السي بي سي لونها موف

285. Hormone replication of RBCs:

- a. Erythropoietin

- b. Creatin kinas
- c. Amylase
- d. Progesterone

هنا يقولك ايش اسم الهرمون اللي يصنع كريات الدم الحمراء
اكيد الأثرثرو بيوتين
وكلنا نعرف ان كريات الدم الحمراء لها اسمين وهم
RBC=erythrocytes

286. Brucella Mellitensis is

- a. Obligatory aerobic bacteria
 - b. Obligatory anaerobic bacteria
 - c. **Facultative anaerobic bacteria**
 - d. Micro-aerophilic bacteria
- يعني هذه البكتريا تعتبر اختيارية لاهوائية

287. Variation in RBCs size:

- a. Microcyrosis
- b. Macrocytosis
- c. **Aniso cytosis**
- d. Poiklocytosis

هذا السؤال مهم اذا قلقك
التغير في كريات الدم الحمراء في المقاس نختر=انيزو سايتس
لكن لو قال التغير في كريات الدم الحمراء في الشكل نقول=بوكيلو سايتس
يعني

Change size=aniso cytosis

Change shape=poiklocytosis

يارب وضح

288. Growth hormone secreted from:

- a. Thyroid gland
- b. **Pituitary gland**

- c. Parathyroid gland
- d. Adrenal gland

هنا يقلك هرمون النمو من اين يفرز
هرمون النمو يفرز من الغدة النخامية خلاص حفظ

289. Most common method used to detect hormone:

- a. Microscope
- b. Flamcytometer
- c. ELIZA
- d. PCR

هنا شيء مهم لو قلتي أي هرمون واي فايروس نكشفة عن طريق جهاز الأليزا
يعني الأليزا نفحص فيها الفيروسات والهرمونات

290. All the following estimation can be done on plasma EDTA blood except:

- a. Glucose
- b. Cholesterol
- c. Urea
- d. Calcium

في هذا السؤال يقولك جميع انواع هذه التحاليل نقدر نعملها بأنبوب اللي لونة
موف ماعدا الكالسيوم لان المادة المانعة للتجلط اللي في الأنبوب حقت الأداة اللي
لونها موف تسحب الكالسيوم ومراح نحصل على كالسيوم اذا جينا نحللة

291. Lenses near the slide in light microscope:

- a. Objective=العدسة الشيئية
- b. Stage
- c. Eye lenses=العدسة العينية
- d. Arms

هنا يقولك العدسة القريبة من السلايد ايش هيا اكيد العدسة الشيئية
لوجاب لك العدسة القريبة من العين اكيد راح تكون العدسة العينية

292. Gas gangrene cause by :

- a. Clostridium botulism

b. Clostridium tetani

c. Clostridium prefringers

هنا يقولك ايش اللي يسبب مرض الغرغرينا

293. The cause of plague:

a. Y. enterocolitica

b. Yersinia pestis

c. Mycobacterium tuberculosis

d. Non of the above

هنا يقولك ايش اللي يسبب مرض الطاعون

294. Storage temperature of platelets

a. 37 C

b. 35 – 40

c. 22 – 27

d. -4

شرح من قبل

295. Trachoma is caused by:

a. Mycoplasma

b. Chlamydia

c. Richettsia

d. Mycobacterium

الحين يقولك ايش اللي يسبب الرمد الحبيبي اللي يصيب العين هيا الكلاميديا

296. It's function is to transport oxygen from the lung to the tissue:

a. Haptoglobin

b. Hemoglobin

c. Bilirubin

d. Myoglobin

يقولك ايش اللي ينقل الأكسجين من الرنى الى الانجسة اكيد الهيموجلوبين
يعني هذه وظيفة الهيموجلوبين

297. Leukocyte count become >4000 in: -

a. Infection

b. Malignancy

- c. ALL above
- d. Non above

298. Responsible for cellular immune:

- a. T- cell
- b. B-cell
- c. NK cell
- d. Plasma cell

شرح من قبل

299. Bacteria Trans from animal:-

- a. Toxo plasm
- b. Brucella
- c. E.coli
- d. Strepto pyogenes

هنا يقولك ايش اسم الطفيل اللي ينتقل عن الطريق الحيوانات اكيد هيا البريسلا

300. Reject donor because:-

- a. Age between 17-60
- b. Wight above 50
- c. Hb in male above 13.5
- d. Donor pregnant

متى نرفض المريض من التبرع اذا كانت امراة حامل

301. Gout disease caused by:-

- a. Uric acid
- b. Urea
- c. Glucose
- d. Calcium oxalate

الحين عرفنا اليورك اسد معدلها الطبيعي من ٣-٧
اذا زادت هذه النسبة تسبب مرض النقرس اللي هو داء الملوك
يعني اللي يسبب مرض القويت هو اليورك اسد
احفظ معلومتين عن اليورك اسد
معدلها
المرض اللي تسببه
خلاص

302. Best way to determine electrolyte:-

- a. HPLC
 - b. Spectrophotometer
 - c. Flam photometer= خاص بالأكتروليت والعناصر
 - d. Thin layer chromatography
- الحين عرفنا جهاز ثاني خاص بالأكتروليت اللي هيا الأيونات والعناصر
وجهاز الأليزا خاص بالهرمونات والفيروسات

303. Yellow brown egg

- a. *Ascaris lumbricoid*
- b. *Schistosoma mansoni*
- c. *Giardia lamblia*
- d. *Entamoeba histolytica*

304. Pathogen should do:-

- a. Infect-transmitted-Reproduce
 - b. Reproduce- Infect-Tans
 - c. transmitted – Infect – Reproduce
 - d. ALL
 - e. Non above
- هنا يقول الطفيل كيف يدخل للجسم عن طريق
الأصابة
الانتقال للجسم
التكاثر

305. The Ag in ABO system:-

- a. A.B.C
- b. A.B.O

c. A.B.H

الحين هذا السؤال مهم مرة
شوف كلمة انتجين في السؤال
اذا شفت هذه الكلمة في السؤال اعرف انك راح تختار

ABH

لان قبل قلنا فصيلة الدم التي لا تحتوي على انتجين هيا او
لذلك لمن قال كلمة انتجين اخترنا

ABH

لكن لو جاب نفس هذا السؤال وغير في وجاب كلمة قروب راح نختار

ABO

لانة فعلا احنا عندنا فصائل الدم هذي الثلاثة

يعني اذا جاء سؤال

وقال

Ag in ABO=ABH

ولو قال

Group in ABO=ABO

يارب وضكت الفكرة

306. **Reticulocyte** stain with **super vital** to show:-

- a. RNA
- b. Organs
- c. Network
- d. Nucleus

هذا السؤال لحالة يمكن الهيئة تطلع منة خمس اسئلة او أكثر

انا راح احطها لك في هيئة تعداد وأحفظها

قلنا قبل ان

Reticulocytes=غير ناضجة=دم حمراء غير ناضجة

reticulocytes نقول مميزات

خلايا حمراء غير ناضجة-1

تسبب الأنيميا-2

super vital اسم الصبغة حققتها -4

الصبغة حققتها ايش تصبغ RNA تصبغ -5

307. In chemistry lab use:-

- a. Green tube
- b. Red tube
- c. Blue tube
- d. Lavender

308. In stool conce. Method should not use with:-

- a. S.mansoni
- b. Fascioloa egg
- c. H.nana
- d. A & C
- e. Ascaris

معروف ان البراز أكرمكم الله لة طريقة معينة لكن بعض الأشياء لانعمل معها
الطريقة المعينة حققت البراز
لكن على طول نأخذ العينة وننرسبها من غير منعمل شيء

309. Give double zone in blood agar:-

- a. α -hemolytic streptococci
- b. β -hemolytic streptococci
- c. ALL
- d. Non

310. In AML we see:-

- a. Blast cell more 20%
- b. No blast cells
- c. More increase in WBCs
- d. ALL

هنا يقولك سرطان الدم الحاد وين نقدر نشوفة

311. EDITA tube has a color:-

- a. Purple
- b. Green
- c. Blue
- d. Yellow

312. Hot air oven temp.

- a. 121 C° for 15 min
- b. 180 C° for 30 min
- c. 160 C° for 30 min
- d. ALL

313. Chinese litter sees in:-

- a. C. diphtheria
- b. S.pyogenes
- c. Staph aureus
- d. E.coli

هنا يقولك ايش اللي تكون على هيئة حروف صينية

هيا الدفتيريا

والحين عرفنا اشياء كثيرة عن الدفتيريا

اسم الصبغة والوسط حقها واسم الاختبار حقها والحين عرفنا شكلها

اسم الصبغة حقها=Albert stain

اسم الوسط اللي تنموية=Loffler serum

اسم الاختبار حقها=Elek test

شكلها على هيئة حروف صينية=Chiness litter

314. Detection of hepatitis- C by:-

- a. Anti-B
- b. Anti-A
- c. Anti-C
- d. Anti-D

السؤال مجاوب نفسة

315. We done the following exam for donor except:-

- a. HIV
- b. HCV
- c. H BV
- d. H AV

يقولك لمن يجي شخص عندنا ويبي يتبرع بالدم ايش نعمل لة تحاليل منشان

نشوف هل هو مريض اكيد بنعملة كل التحاليل

هنا في هذا السؤال يقولك ايش هو التحليل اللي ميتحتاج المتبرع للدم انا نسوية
لأعني منعملة لة

اكيد هو التهاب الكبد الوبائي أي
لأنه ينتقل عن طريق الأكل ومالة دخل في الدم

316. Lipid and clot factor remove to obtain:-

- a. Plasma
- b. Plasma protein
- c. Serum
- d. Non above

يقولك عندنا عينة شلنا منها الدهون واعوامل التجلط ايش يبقى اكيد السيروم

317. In blood group use:-

- a. Known cell with unknown serum
- b. Unknown cell with known serum
- c. Know cell with unknown cell
- d. Unknown cell with unknown serum

هذا السؤال تتذكرون لمن كنا نعمل في المختبر وكيف نطلع فصيلة الدم ايش كنا
نستخدم

كنا نستخدم قطرة من دم المريض يعني كان مجهول عندنا نوع الخلية
وكنا نستخدم السيروم اللي لونهم ازرق واصفر وعديم للون يعني كنا نعرف
السيروم

هنا يقولك في هذا السؤال في مجموعات الدم ايش نستخدم
الخلية غير معروفة
بس السيروم معروف
يارب واضح

318. Start zeal nelsin stain with

- a. Malachite green
- b. Crystal violet
- c. Carbol fuchsin
- d. Safranin

هنا يقولك في صبغة الزل نلسن ايش اسم الصبغة اللي اول شيء نستخدمها

319. The gene in ABO system:-

- a. A.B.C

- b. A.B.O
- c. A.B.H
- d. A.B.D

شرحة قبل

320. Hb range in adult:-

- a. 13.5 - 17.5 gm/dl.= هذه النسبة ترى في الرجل
- b. 12 -16 gm/dl= هذه النسبة للمرأة
- c. 13.5 - 17.5 mg/dl.
- d. 11 – 15 gm/dl.

321. Hb used in:-

- a. Utilize therapy anemia
- b. Diagnosis anemia
- c. Utilize therapy of jaundice
- d. ALL

هنا يقولك الهيموجولبين نستخدمه في تشخيص ايش
اكيد في تشخيص الأنيميا يعني فقر الدم

322. To detect Ab use:-

- a. Indirect antibodies test
- b. Direct antibodies test
- c. Spectrophotometer
- d. ALL

هنا يقولك للفحص عن الانتي بودي ايش نستخدم
ممكن يجب لك سؤال ثاني ويقولك
To detect RBC= direct antibody test
يعني هذا السؤال يجي منة سؤالين

323. In the plain tube what happen to the sample:

- a. Cloting
- b. Hemolysis
- c. Not cloted
- d. Seperated

هنا يقولك عندنا انبوبة فاضية وايش يصير لو حطينا فيها دم اكيد الدم راح يتجلط
لان الأنبوبة لاتحتوي على مادة مانعة للتجلط
وراح يتجلط الدم اكيد

324. The HB which found in 96% is:

- a. 2alpha + 2 beta
- b. 2alpha + 2 delta
- c. 2alpha + 2 gamma
- d. 2alpha + 3 beta

شرح من قبل

325. The most common blood group is:

- a. O blood group
 - b. A blood group
 - c. B blood group
 - d. AB blood group
- أكثر فصيلة واسعة الانتشار

326. The antibody of blood group is:

- a. Anti A and B
- b. Anti A and C
- c. Anti A and O
- d. All of the above

معروف انواع الانتي بدي
انها
أيو وبى

327. We can differentiate from gram (-)and gram (+) by:

- a. Cell wall
- b. Cell membrane
- c. Nucleus
- d. Cytoplasm

هنا يقولك ايش الفرق بين غرام موجب وغرام سالب قلنا قبل ان غرام موجب
جدارها ثقيل

وغرام سالب جدارها خفيف
يعني الاختلاف في الجدار الخلوي

328. The cell wall of gram(+) contain :

- a. Peptidoglycan and teichoic acid
- b. Peptidoglycan only
- c. Teichoic acid only
- d. Cellulose and pectin

عرفنا قبل ان الغرام موجب جدارها ثقيل
والغرام سالب جدارها خفيف
الحين في هذا السؤال يوضح من ايش يتكون الجدار الخلوي حق جرام موجب
وحق غرام سالب
يعني
Gram positive=thick-peptidoglycan and teichoic acid
Gram negative=thin-toxic lipopolysaccharide
وضحت يعني كل واحد منهم الجدار حقة يتكون من مواد معينة

329. The fundamental of erythrocyte production is:

- a. Erythropoietin
- b. Thyroxine
- c. Growth hormones
- d. ADH

330. leukocyte increase in case :

- a. Chemotherapy
- b. Radiation
- c. Bacterial infection
- d. All of the above
- e. None of the above

هذا السؤال واضح متى ترتفع كريات الدم البيضاء في حالة العدوى بالبكتيريا

331. The triple granule, which is the most abundant in leucocyte, is:

- a. Neutrophil
- b. Eosinophil
- c. Basophil

d. Lymphocyte

قبل قلنا ان النيترو فيل اكثر شيء ونسبتها عالية
نسبتها من ٤٠% الى ٧٥%
يعني خلاص هيا اعلى شيء

332. Which of the following will increase the calcium concentration:

a. None restricted foods

b. Prolonged fast

c. prolonged application of tourniquet=حالة ربط الذراع

d. None restricted drug

في هذا السؤال يقولك ماهيا الحالات التي تزود الكالسيوم
احيانا نعمل شيء غلط لمن نجي نعمل التحليل ونسحب الدم
في ناس تربط الذراع بمطاط او أي شيء اخر المفروض اذا كان المريض
مطلوب لة تحليل كالسيوم منعزل هذه الحركة لانها تزود الكالسيوم
يعني ممكن المريض يطلع الكالسيوم عنده عالي وهو اصلا منخفض بس بسبب
هذه الحركة يطلع عالي

333. Ferritin measure

a. Hemolytic anemia

b. Aplastic anemia

c. Iron deficiency anemia

d. Megaloblastic anemia

الفرتين معروف انه الحديد المخزن في الجسم
في هذا السؤال يقول ايش يقيس
طبيعي يقيس نقص الحديد

334. The following index sensitive and will measure the total of iron deficiency anemia

a. Transferrin

b. Ferritin

- c. TIBC
- d. Hb electrophoresis
- e. All of the above

كل هذه التحاليل ممكن تقولنا اذا فيه نقص حديد أو لا

335. To differentiate between hemophilia A and B

- a. Leukocyte count
- b. Factor assay
- c. PT and PTT assay
- d. All of the above

هنا يقولك ايش الاختلاف بين الهيموفيليا أي وبى

الاختلاف في تحديد العامل

وهنا معلومة أخرى ان

عدد العوامل فيها ٨ = Hemophilia A

عدد العوامل فيها ٩ = Hemophilia B

336. The following microorganism will not take the gram stain:

- a. E.coli
- b. Streptococcus
- c. Staphylococci
- d. **Mycobacterium sp**= zile nelssine قلنا من قبل انها تنصبغ بصبغة

هنا في هذا السؤال يقولك أي من البكتيريا اللي لاتنصبغ بصبغة غرام

مايكو بكتيريوم معروف لها صبغة خاصة تنصبغ فيها وكتبت اسمها عندها

337. The following parasite will not take the gimsa stain:

- a. leishmanai.
- b. Trypanosoma
- c. **Schistosoma**
- d. Malaria
- e. Filaria

في هذا السؤال يقولك ايش من الطفيليات لاتنصبغ بصبغة قيمسيا

هيا الشستوسوما

338. Plasmodium will transfer by:

- a. Mosquito
- b. Fly
- c. Mite
- d. All of the above

قلنا قبل ان هذا الطفيل يسبب مرض الملاريا ونفحصه في الدم وينتقل عن طريق شيء معين
يعني جمع معلوماتك وقول
الملاريا عندي اشياء كثيرة احفظها عنها وخذ

Diagnostic malaria=thick blood

Infected malaria=sportozess

Transfer=female mosquito

وممكن بس يكتب لك مسيكتو بس انا خلك عارف انها الأنثى
ويارب وضحت

339. When the micro invades, the body B-cell will secret and it will transfer to

- a. Memory cell
- b. Plasma cell
- c. Phagocytic cell
- d. Cytotoxic

340. Glycogen will formation in

- a. Liver
- b. Kidney
- c. Stomach
- d. Brain

الجلوكوز يتخزن في الكبد على هيئة جلايوجين

341. Which of the following parasite will cause abscess in liver?

- a. **E.hostolytica**
- b. Malaria
- c. Ascaris lumbricoid
- d. Tricurus tricura

هنا يقول ايش اسم الطفيل اللي يسبب خروج صديد من الكبد

342. Reliable method to measure the PH is

- a. **PH meter**
- b. Litmus paper
- c. Indicator
- d. none of the above

343. The proper result of individual

- a. When the result be more than the normal value
- b. **When the result be close to the normal value**
- c. When the result be less than normal value
- d. All of the above

هنا يقول متى تكون النتيجة افضل شيء في التحليل
كيد لمن تكون النتيجة قريبة من الطبيعي

344. The following tests we doing in emergency cases except

- a. Electrolyte=مهم وقت الطوارئ
- b. Glucose=مهم وقت الطوارئ
- c. Blood gases=مهم وقت الطوارئ
- d. **Albumin=** غير مهم وقت الطوارئ لانه من وظائف الكبد
يقولك لمن تجيك حالة طارئة يعني حادث لاسمح الله او أي شيء اخر
ايش هو التحليل اللي مو مهم تعملة
اكيد الألبومين ليش

لانه من وظائف الكبد يعني شيء غير مهم وقت الطوارئ
احيانا يجيب لك سؤال ويقولك ايش اسم العينة التي تجينا من الطوارئ
اسم العينة اللي تجينا من الطوارئ=Urgent

واحيانا يقولك ايش اسم العينة اللي تجي من العناية المركزة
اسم العينة اللي تجي من العناية المركزة=ICU
واحيانا يقولك ايش اسم العينة اللي تجي من الغسيل الكلوي اللي مهم فشل كلوى ربي يشفيهم
اسم العينة اللي تجي من قسم الفشل الكلوى=AKU

345. Malaria diagnostic by

- a. Thin blood film
 - b. Gimsa
 - c. Gram stain
 - d. None of the above
- شرحة من قبل

346. Candida albicans

- a. Virus
- b. Bacteria
- c. Molds yeast= fungi ممكن يجيب اسم أخرى لها
- d. Parasite

يقولك هنا ايش تصنيفها

هيا تعتبر من الفطريات والخمائر وممكن يجيب لك واحد من هذي الأسماء

347. TORCH means

- a. Pathogenes cause abortion
- b. Toxoplasma
- c. Roubella
- d. Cytomegalovirus
- e. Herpes

f. ALL

يقولك هنا ايش معنى هذا الاختصار

معناة

TORCH=toxo plasma Roubella Cytomegalovirus Herpes

348. Poikilocytosis is:

- a. Variation in red cell size
- b. Variation in red cell color
- c. Variation in red cell shape

d. None of the above

شرحة من قبل

349. Food poisoning caused by

- a. Clostridium tetani
- b. E.coli
- c. Campylobacter
- d. Clostridium perfringens

هنا يقولك ايش اللي تسبب تسمم الطعام
وفية شيئين يعملون تسمم للطعام

1- Salmonella

2- Clostridium perfringens

350. Anti diuretic hormone will secret from posterior pituitary gland

- a. Decrease urine volume
- b. Increase urine volume
- c. Decrease sugar volume
- d. Decrease protein volume

هنا يقولك الجزء الخلفي من الغدة النخامية ايش يعمل
يقلل حجم البول

351. Blood plasma consists of

- a. 90 % Water and 10 % other component
- b. 10 % Water and 90 % other component
- c. 50 % Water and 50 % other component
- d. 99% water and 1 % other component

352. Arterial blood for

- a. Blood chemical
- b. Hormones
- c. Blood gases
- d. Enzyme

معروف احنا لمن نجي نسحب دم دائن نسحب من الوريد
لكن في حالة واحد فقط نسحب من الشريان اذا كان يبقى غازات الدم

يعني الشريان نسحب منه فقط في حالة نبي نقيس غازات الدم

329. The API 20E system used in identification of enterobacteriaceae consider a..... Methods

- a. Genetics
- b. Biochemical
- c. Immune
- d. Serological

330. Pelger-Huet anomaly in neutrophil character by

- a. Hyposegmented= يقلل الفصوص ويقلل عملها
- b.
- c. Hypersegment
- d. Toxic granules
- e. ALL

هنا يقولك المرض الوراثي اللي يصيب النيترو فيل ايش خصائصه
يقلل الفصوص
احنا قلنا من قبل ان النيترو فيل فيها فصوص كثيرة صح
هذا المرض يخلي الفصوص فيها قليلة
يارب وضحت

331. Lamb in Flow cytometry

- a. Halogen
- b. Light
- c. Laser
- d. Electrons

لو جاء نفس هذا السؤال لكن قال

Lamb in spectro photometer=halogen

يعني انتبة شوف ايش اسم الجهاز

332. Which of the following factor affect on erythropoises

- a. Folic acid
- b. Vitamin B12
- c. Hypoxia
- d. All

جميع هذه العوامل تؤثر على تصنيع الكريات الدم الحمراء

333. Number of light chain in Antibodies

- a. 1
- b. 2
- c. 3
- d. 4

334. Tubes used in sugar analysis

- a. Brown
- b. Blue
- c. Red
- d. Green

نعرف ان السكر نحلله في جهاز الكيمستري والأنبوب اللي نستخدمه في جهاز الكيسمترى لونه اخضر وفيه هيبارين

335. All the following related to immune assay except

- a. ELISA
- b. Immuno-flourescence
- c. Immuno-diffusion test
- d. Immuno- Immunorecipient

يقولك في هذا السؤال كل هذه التحاليل مهمة في تحليل المناعة ماعدا طريقة الترسيب لانها مراح تفيدنا بشيء وهذا السؤال جاني نفسه بكل شيء مرة مرة

336. Pseudomonas is:

- a. large mucous amount
- b. Small amount of mucous
- c. No mucous
- d. None of the above

337. N.gonorrhea

- a. Gram-negative rods only
- b. Oxidase positive only
- c. Gram-negative rods and oxidase positive
- d. Gram-negative cocci and oxidase positive

338. The following character is TRUE about Pseudomonas aeruginosa

- a. Motile- Oxidase positive - Non-lactose ferment-Gram negative rods
- b. Motile- Oxidase positive -lactose ferment-Gram negative rods
- c. Non-Motile – Oxidase positive- Non-lactose ferment-Gram negative rods
- d. Motile- Oxidase Negative- Non-lactose ferment-Gram Positive rods

339. Stool sample containing Pus due to

- a. Amoebic dysentery
- b. Bacillary dysentery
- c. Giardiasis
- d. Ascaris lumbricoid

340. In Blood transfusion we may use

- a. Sodium
- b. Calcium
- c. Potassium
- d. Phosphate

في حالة تبرع الانسان للدم يقولك ايش ممكن نعطية
نعطية بوتاسيوم لانه معروف انه يعمل ضربات للقلب لو سمح الله جاء هبوط
بسبب سحب الدم من الانسان

341. The word "decontamination" what of the following meaning is true

- a. Reduction or removal of agents=عملية عن نوقفة
- b. Increase toxicity

- c. Treat the agents
- d. ALL

هنا يقول ايش معنى الكلمة اللي انا حددتها بالأحمر معناة بالعربي الأزالة يعني
نوقفة

342. All of the following bacteria cell components except

- a. Cell wall
- b. Cell membrane
- c. Cytoplasm
- d. Pilli
- e. Mitochondria

يقولك هنا ايش اللي غير موجود في البكتيريا
اكيد الميتوكوندريا
وايضا البكتيريا لاتحتوي على نواة

343. Adeno virus is:

- a. RNA genome
- b. Double shield capsule
- c. DNA virus

لو جاب لك وقال لك

Areno=RNA

يعني نفس الاختصار

ارينو ار اني أي

ادينو دي أي ان

Adeno=DNA

Areno=RNA

344. Bacteriological culture media are generally sterilized by

- a. The autoclave
- b. The oven
- c. Filtration
- d. Bunsen burne

هنا يقولك المزرعة البكتيرية ايش افضل شيء عشان نعقمها فية الايتو كيلف
احسن شيء في تعقيم المزارع البكتيرية

345. Eye swab cultur in

- a. MaCconky
- b. CLED
- c. Chocolate
- d. XLD

هنا يقولك المسحة من العين أين نزرعها على الوسط الشوكولاتة
انت قول
العين تحب الشوكولاتة وخلص

346. HIV Transmitted by

- a. Blood
- b. Urine
- c. Semen
- d. Body fluid
- e. All

معروف ان مرض الأيداز ينتقل عن طريق الدم والسوائل والجنس وكل هذا
يصير صح

347. The following index sensitive and will measure the of iron deficiency anemia:

- a. Transferen
- b. Feretin
- c. TIBC
- d. HB Concentration
- e. ALL of above

348. Erythropoietin secreted from

- a. Kidney
- b. liver
- c. Stomach
- d. Brain

349. B hemolytic

- a. S.pyogens
- b. S.agalactia
- c. S.pneumonia

d. A and B

350. Heparinized syringe use to collect _____ sample

- a. Synovial
- b. CSF
- c. Venous = الوريد
- d. Arterial

351. One of these test effected by slight hemolytic

- a. Potassium
- b. Blood glucose
- c. Triglyceride
- d. Cholesterol

فية تحاليل منقدر نعملها لو كان الدم في تكسير هيمو لايزر
مثل البوتاسيوم يتأثر مرة بالتكسير حق الكريات الدم الحمراء
hemolysis يعني اذا جاتني عينة فيها
وطلب لها تحليل بوتاسيوم أرفضها لان البوتاسيوم يتأثر

352. ESR effected by

- a. Viscosity
- b. Cell shape
- c. Anticoagulant
- d. All of the above

كل هذا العوامل تأثر على الايسار

353. Turbidity measured by

- a. Spectrophotometer
- b. Flam photometer
- c. Flowcytometer
- d. Nephelometer

هنا يقولك العكارة ايش الجهاز اللي نقيسها فيه قول
Turbidity-nephelometer

354. Test performs in blood banking lab.

- a. HBVc Ab
- b. HBVs Ag**
- c. HBVs Ab
- d. ALL

السؤال

الحين مثلا اذا جاني تحليل التهاب الكبد الوبائي بي

طبيب

مثلا زي العمال

فية ناس ياخذون تطعيم ضد التهاب الكبد الوبائي بي

يعني جسمهم خلاص فية انتي بدي

يعني اذا عملنا لهم تحليل التهاب الكبد الوبائي يطلع عندهم انتي بدي

يعني غير دقيق في كشف المرض

لكن عشان أتأكد مليون بالمية ان المريض مصاب بالتهاب الكبد الوبائي

لازم اعمله تحليل الانتيجين

اذا طلع التحليل موجب يعني مصاب

واذا سالب يعني غير مصاب

يارب واضح

355. Hereditary acid

- a. Fatty acid
- b. Amino acid**
- c. Folic acid
- d. Acid alcohol

الأحماض الوراثية عبارة عن احماض امينية

356. The most problem in Pregnancy

- a. Fetus +ve and mother -ve**
- b. Fetus -ve and mother +ve

هنا يقولك متى يصير مشكلة في الحمل

المشكلة في الحمل اذا كانت الأم فصيلة دمها

O

وكانت هيا سالب والطفل موجب

يعني متى تصير المشكلة اذا كانت الام موجب والطفل سالب

لان جسمها يعتبر الطفل شيء غريب ويكون اجسام مضادة ضد الطفل ويصير باجهاز للمرأة

357. The XLD color

- a. Blue
- b. Green
- c. Red
- d. Yellow

358. Differential test for

- a. Erythrocyte
- b. Leukocyte
- c. Platelets
- d. Blast cell

هنا يقولك الاختبار التفريقي نعمة لايش
لكريات الدم البيضاء نعمة

359. Bacteria cause scarlet fever

- a. Streptococci G.B
- b. Streptococci G.A
- c. Streptococci G.C
- d. Streptococci G.D

360. Streptococci are

- a. α -hemolytic
- b. β -hemolytic
- c. γ -hemolytic
- d. ALL

361. Intermediate host of toxoplasma

- a. Cat
- b. Mice
- c. Human
- d. Pork

في هذا السؤال يقولك ايش هو العائل الوسيط في التوكسو هو الإنسان
لكن لو قللك ماعو العائل النهائي نقول القطه

يعني

Inter mediate toxoplasma=human

Final host toxoplasma=cat

362. Perianal specimen diagnose

- a. Trichomonas vaginalis
- b. Tainia saginata
- c. **Entrobilus vermicularis**=الدودة الدبوسية
- d. Enta.histolytica

363. Function of Estrogen:

- a. **Increase Oogenesis**
- b. Stimulate contraction of uterus
- c. Increase basal metabolic
- d. Thyroxin production

هنا يقولك ايش وظيفة الأستروجين

ومعروف انه يزيد التبيويض في المرأة

364. Safety in the Lab include vaccination of stuff against

- a. HAV=ينتقل عن طريق الطعام يعني مفية تطعيم
- b. HCV= لم يكتشف لة تطعيم حتى الآن
- c. **HBV**
- d. ALL

هذا السؤال افهم معي

يقولك من الأمان في المعمل عشان منصاب بالأمراض نأخذ تطعيم ضد ايش

ووضحت ليش اخترت التهاب الكبد الوبائي بي

365. Which of the following will give the best overall picture of a patient's iron stores:

- a. Albumin
- b. Transferrin
- c. Haptoglobin
- d. **Ferritin**

هنا يقولك ايش من هذه الأشياء تعطي افضل لنسبة الحديد المخزن في الجسم
هو الفرتين

366. One of the following is kidney function

- a. sGPT
- b. Creatin kinase
- c. Acid phosphates
- d. Creatinin

هنا يقولك ايش اللي يعتبر من وظائف الكلى اكيد الكيرتاتين

367. One of the following is Cardiac function

- a. LDH
- b. Acid phosphates
- c. Creatinin

من من هذه التحاليل تبع القلب اكيد

Lactate dehydroganse

368. Increase In thalassemia

- a. HbA
- b. HbA2
- c. HbF
- d. HbS

شرحتة من قبل

369. The main groups in ABO system

- a. A-B-O group
- b. B-C-D group
- c. A-B-H group
- d. R- H group

شرحتة من قبل

370. Different between Entamoba histolytica and Entamobia coli
اربع انوية and ثمان انوية

- a. Cytoplasm
- b. Cell wall
- c. Number of nucleus
- d. Color

يقولك هنا ايش الاختلاف بينهم
الاختلاف في عدد الأنوية

371. Different between Salmonella and Shigella

- a. Indol test
- b. Motility
- c. Gram stain
- d. Catalase

يقولك هنا ايش الاختلاف بين شوشو وسوسو
الاختلاف في الحركة وحدة متحركة ووحدة غير متحركة
Salmonella=متحركة
Shigella=غير متحركة

372. Which of the following is responsible for humoral response:

- a. Neutrophils
 - b. Basophils
 - c. B lymphocytes
 - d. Monocytes
- شرحة من قبل

373. Largest cells in blood film

- a. Monocyte
- b. Lymphocyte
- c. Neutrophil
- d. Eosinophil

monocytes في هذا السؤال يقولك ايش الخلية اليل اكبر في شيء في الحجم هيا
وفا سؤال اخرى ايش الخلية اللي اكثر شيء من حيث العدد قلتها من قبل يعني

Monocytes= اكثر شيء من حيث الحجم

Neutrophils= ٧٥% الى ٤٠% من نسبتها ان قلنا ان نسبتها من ٤٠% الى ٧٥%

374. Haemocytometer used in counting

- a. Erythrocyte
- b. Leukocyte
- c. Platelets
- d. Semen

e. ALL

يقول ك هنا في شريحة العد ايش نقدر نستخدمه ونعد
كل هذه الأشياء نقدر نعددها على شريحة العد
ماعد

Lymphocytes

375. Media contain blood, hematin and DNA

- a. Blood agar
- b. MaCconky
- c. Chocolate agar
- d. XLD

376. Toxoplasma gondii diagnostic from

- a. Stool
- b. Urine
- c. Blood
- d. CSF

377. We can detect Shigella from

- a. Blood
- b. Urine
- c. Body fluid
- d. Stool

قلنا قبل ان الشوشو تسبب اسهال عشان كذا راح نشكف عنها في البراز اكرمكم
الله

378. All the following microscopic structure except

- a. Ocular lenses
- b. Objective lenses
- c. Stage
- d. Wavelength adjustment

379. Neutrophil characters by

- a. Neutrophil low alkaline phosphates
- b. Neutrophil normal alkaline phosphates

- c. Neutrophil high alkaline phosphates
- d. All of the above

380. Serum is plasma without

- a. Lipid
- b. Cholesterol
- c. Fibrinogen
- d. Fibrin

381. For lipid investigation measure

- a. LDL, TG and HDL
- b. Albumen
- c. LDH
- d. ALL

382. Enzyme related to liver

- a. Amalyse
- b. Albumin
- c. ALT, AST
- d. Prothrombin

383. One of the following is electrolyte

- a. Na
- b. Urea
- c. Glucose
- d. Albumin

384. Media used in antibiotic sensitivity

- a. MaCconky
- b. Blood agar
- c. CLED
- d. Muellen Hinton

385. Parasite in stool

- a. Malaria
- b. Trypanosoma

- c. **Schistosoma**
- d. Leishmania

386. Catalyse negative ,Optichin positive bacteria

- a. Staph aureus
- b. S.pyogenes
- c. **S.pneumonia**
- d. S.agalactia

387. CAMP is confirmatory test for

- a. Streptococcus Group A
- b. Streptococcus Group B
- c. Streptococcus agalactia
- d. **B and c**

يقولك هنا كامب اختبار تأكيد لمين
لكن ممكن سؤال ثاني انتبة تلخبط يقولك
ايش يعني هذا الاختصار
CMP=14 chemical test
يعني شوف الاختلاف في حرف واحد
هذا شيء وهذا شيء انتبة

388. Normal person,with healthy condition but Ketone bodies appear in his Urine due to

- a. Drugs
- b. **Prolonged fast**
- c. None restricted food
- d. UTI

يقول انسان طبيعي من حيث الصحة وظهر الأستون في البول على ماذا يدل
اكيد الشخص صايم
لانة قبل قلنا اذا شخص صائم يطلع في البول كيتون واستون

389. Reject Blood donor if:-

- a. **Temperature more than 38.5**
- b. Blood pressure 120/80
- c. Heart pulse rate 72/min

متى نفرض الشخص من التبرع بالدم اذا كانت درجة حرارته مرتفعة اكيد

390. Methylene blue component of

- a. Leishman stain
- b. Giemsa stain
- c. Sudan black
- d. Gram stain

391. Bacterial growth depend on growth of other bacteria in media

- a. Satellitism =خاصية الاعتماد
- b. Antagonism
- c. Degradation
- d. CoFactor

يقول نمو بكتيري يعتمد في النمو حقة على بكتيريا اخرى
ايش اسم هذه الخاصية
اسمها خاصية الاعتماد

392. AB father and B mother give phenotype except

- a. A
- b. AB
- c. B
- d. O

يقولك الأب فصيلة أي بي
والام فصيلتها بي
ايش الفصيلة اللي مستحيل تطلع في اطفالهم
اكيد
O

393. Blood collect in anticoagulant tub should be

- a. Gently mix
- b. Clot
- c. Hemolysis
- d. Put in water bath 5 min

احنا لمن نخط الدم في انبوبة فيها مادة مانعة للتجل ايش نعمل
اكيد نعمل خلط شوي مكس عشان المواد تختلط مع بعض

394. AML different from ALL in

Bleeding and Purpura

- a. More Increased WBCs
- b. Granule neutrophile
- c. Auer rods

395. CPDA anticoagulant to store blood for :

- a. 45
- b. 21
- c. 10
- d. 35

فئة سؤالين مهمين هنا

لوقال

تخزن فيها مدة ٣٥ يوم=CPDA

تخزن فيها مدة ٤٥ يوم=SAGM

396. Blood collect in anticoagulant tube should be:

- a. Hemolysis
- b. Not gently mix
- c. Not cloted
- e. Put in water bath 5 min

وضعنا الدم في انبوبة فيها مادة مانعة للتجلط من الطبيعي ان الدم مراح يتجلط

397. The colonies of Mycobacteria in Lowenstein Jensen medium

- a. Rough ,pale color
- b. Smoth .black
- c. Yellow brown
- d. Raised , dry cream

398. Zile-Neelsen stain for staining

- a. Mycobacteria
- b. E.coli
- c. Corynebacterium diphteria
- d. Salmonella

399. All are blood function except :

a. **Hormone production**

b. Oxygen transport

c. Wast transport

d. Neutrient absorbtion

e. Buffer system

كل هذه الأشياء من وظائف الدم ماعدا
انتاج الهرمون يعني الجسم اصلا مينتج هرمون
اللي ينتج الهرمونات هيا الغدد وليس الدم

400. The (u) unit use to evaluation?

a. Protein in serum

b. Hemoglobin

c. Hormone assay

d. **Enzymatic activity**

401. A semen specimen , contain source of the spermatozoa energy is

a. Glucose

b. Mannose

c. **Fructose**

d. Sucrose

يقولك ايش السكر الموجود في السائل المنوي اللي يعطية النشاط هو الفركتوز

402. During reaction of 2 chemical substances , the color produced asses by :

a. **Spectrophotometer**

b. Flame photometer

c. ELISA

d. PCR

الحين هذا ثالث جهاز نأخذة

يعني

Spectrophotometer= chemical substances

Flam photometer=electrolyte

ELISA=الهرمونات والفايروسات

403. Non streptococci:

- a. S.pyogenes
- b. S.agalatiata
- c. S.aureus
- d. S.pneumonia

404. HIV and Hepatitis transmitted by

- a. Blood
- b. Urine
- c. Body fluid
- d. All of above

405. Bacteria arranged in chains?

- a. C.diphtheriae
- b. E.coli
- c. Salmonella
- d. Staph.aureus

406. Autoclave sterilize in.

- a. 121°C-20 min
- b. 125-35 min
- c. 115-35 min
- d. هنا يقولك كم درجة حرارة تعقيم جهاز الأيتو كيلف
- e. 160°C-45-60 min

407. Media used to differentiate between L.F and N.L.F?

- a. MacConkey agar
- b. Chocolate
- c. Blood agar
- d. XLD
- e. TCBS

408. Lactos (+) , Indol (+) , MR (+) , VP (-) , citrate (-) are

- a. **Escherichia**
- b. Klebsiella
- c. Salmonella
- d. Nessiria

409. Which of the following organism is Gram positive anaerobic bacterium?

- a. **Clostridium spp**
- b. Haemophilus
- c. E.coli
- d. Yersinia enterocolitica

410. Salmonella causes.

- a. **Food poisoning**
- b. Scarlet fever
- c. Pharyngitis
- d. Whooping cough

قلنا قبل السالمونيلا تسبب تسمم الطعام

411. All the following can be done by hemocytometer except

- a. RBCs
- b. Semen
- c. **Lymphocyte**
- d. Total White blood cells

شرحته قبل

412. To fixation of thin blood film we can used

- a. Aceton
- b. Acitic acid
- c. **Acid –alcohol**

d. Not fixe

لمن نجي نثبت الدم الرفيع ايش نستخدم اول شيء
اسيد وبعدين كحول
لكن لو قالك الدم الثقيل لا يثبت
يعني الدم الخفيف نقدر نثبتة
لكن الدم الثقيل منقدر نثبتة

413. Scotch-tap test used for

- a. *Ascaris lumbricoides*
- b. *Ancylostoma duodenal*
- c. *Trichuris tricura*
- d. *Taenia saginata*
- e. ***Enterobius vermicularis***

414. The media can growth some bacteria and inhibition another bacteria is

- a. Basic media
- b. Diffrentioal media
- c. **Selective media**
- d. Enriched media,

هنا يقولك الوسط الي يسمح بنمو بعض البكتيريا ولكن لايسمح بنمو بكتريا أخرى
يعني هذه خاصية الاختيار
يعني يخلي وحدة تنمو والثانية تموت

415. Viruses is

- a. Can live by their own
- b. **Can not see by light microscope**
- c. **Can not affected by antibiotic**
- d. Can not transport by communicable diseases

يعني الفايروسات لا تتأثر بالمضادات الحيوية وهذا هو الصحيح
وكمان لانستطيع ان نشوفها تحت المجهر الضوئي
يعني فية اثنين صح

416. Normal value of Lymphocyte

- a. 55%
- b. 25%
- c. 70%
- d. 10%

417. We can different gram –ve bacteria and gram +ve bacteria by

- a. Capsule
- b. Cytoplasm
- c. Cell wall
- d. Cell membran

418. Antigen In O Positive person

- a. No presence of Ab
- b. No presence of Ag
- c. No Presence of Ab and Ag

419. Which normaly presence in urin analysis

- a. Protein
- b. Billrubin
- c. Chloride
- d. Glucose

ايش الشيء الطبيعي اللي نראה في البول اكيد الكلور
لكن الأشياء الأخرى اذا شفتة في البول اعرف انوة فية مرض

420. Rh negative patient means he dose not have

- a. E antigen
- b. D antigen
- c. B antigen
- d. C antigen
- e. None of the above

421. In O blood group the Ab in serum is

- a. Anti A and B
- b. Anti A
- c. Anti B

- d. Non A and B
- e. All of the above

422. It's one of the tape worms

- a. *Ascaris lumbricoides*
- b. *Ancylostoma duodenal*
- c. *Trichuris tricura*
- d. ***Taenia saginata***

423. Immune system can called Adaptive system or

- a. Lymphocyte system
- b. **Acquired system**
- c. Lymphocyte-immune system
- d. Natural system

424. One is not true about acid:

- a. Proton donor
- b. **Turn litmus paper to blue**
- c. Sour taste
- d. React with alkaline to give water and salt

425. Most common method (technique) used to detect hormone amount in the laboratories

- a. Spectrophotometry
- b. Flamphotometer
- c. **Enzyme Linked Immuno Surbant Assay (ELIZA)**
- d. PCR

426. Gram positive chain

- a. **Streptococci**
- b. Staphyllococci
- c. Gonococci
- d. Meningococci

قلنا قبل انها على هيئة سلسلة الأستربتو

427. One is gram-ve motile rod aerobic and oxidase possitive

- a. E.coli
- b. Proteus
- c. **Pseudomonas**
- d. Salmonella

428. Organism can live and affect urinary tract or vagina

- a. Toxoplasma
- b. Giardia lamblia
- c. **Trichomonas vaginalis**
- d. All of the above

429. In blood group use:-

- a. Know cell with unkown serum
- b. **Unkown cell with kown serum**
- c. Know cell with unkown cell

430. Anigen and Anti-body can bind on

- a. **Ag on RBCs and Ab on plasma**
- b. Ab on RBCs and Ag in Plasma
- c. Ag on RBCs and Ag in Plasma

معروف ان الانتجين يكون موجود في الداخل على كريات الدم الحمراء لكن الأنتي
بدني يكون موجود على سطح البلازما

- d. ALL

431. E-coli

- a. Motile
- b. indole +ve
- c. lactose fermetive
- d. produce gas and acid
- e. **All above**

432. Which of the following required for culture:

- a. Water

- b. Minerals
- c. Vitamins
- d. **All the above**

ايش اللي نحتاجه للوسط اللي نزرع عليه كل هذه الأشياء ضرورية لنمو الوسط

433. The antibiotic disc which differentiate between group A streptococci and other groups is?

- a. Neomycin
- b. Tetracycline
- c. **Bacitracin**
- d. CAMP

434. Amoeba stained by

- a. Gram stain
- b. Geisma
- c. **Iodine eosin stain**
- d. Leishman

435. Infective stage of hook worms

- a. **Larva**
- b. Egg
- c. Cyst
- d. Metacercaria
- e. Cercaria

436. In serial dilution if folded 2 tube the dilute in number 6 is

- a. **1/32**
- b. 1/64
- c. 1/128
- d. 1/256

هذا ردي على وحدة من اخوات في المنتدى نسخته

شوفي اي سؤال يجيكي عن التخفيف انا صراحة عملت طريقة وحفظتها من خلالها حل هذه الأسئلة وجاتني في الهيئة سوالمين بهذه الطريقة

إذا جاكى سؤال مثلاً ٥ تحطى ٢ اس ٤
 وإذا جاكى ٦ تحطى ٢ اس ٥
 وإذا جاكى ٧ تحطى ٢ اس ٦
 وإذا جاكى ٨ تقولى ٢ اس ٧
 وهكذا يارب تكونى فهمتى عليا
 انا عملت نفس هذه الطريقة ويطلع الحل صح الحمد لله وتقدرى تتأكدى انتى كمان عشان ترتاحى
 انة الحل صح وأنت اعملو الطريقه هذى وراح يطلع الحل الصحيح بأذن الله

437. In serial dilution if folded 2 tube the dilute in number 8 is

- a. 1/32
- b. 1/64
- c. **1/128**
- d. 1/256

438. Media for corynebacterium is

- a. **Loffler serum**
- b. Lewisjensen media
- c. Blood media
- d. CLED media

439. Factor of hemophilia A

- a. **VIII**
- b. VI
- c. X
- d. XI

يعنى ثمانية

440. Shegilla ssp is not

- a. H₂S Negativ
- b. **Oxidase Positive**
- c. Urease negative
- d. Citrate negative
- e. Lactose negative

441. Lamp used in spectrophotometer

- a. Halogen
- b. Laser
- c. Ions
- d. Light

442. Leishmania transmitted by

- a. Sand fly
- b. Anophles
- c. Tse tse
- d. Mice

عن طريق ايش تنتقل عن طريق ادودة الرمل

443. Liver enzymes related to

- a. AIDS
- b. Hepatitis
- c. Herps
- d. Influnza

انزيمات الكبد لها علاثة بالتهاب الكبد الوبائي

444. Enzyme related to myocardial disease

- a. CK-MB
- b. ALT
- c. AST
- d. ALP

445. Coombs test used for

- a. Auto antibodies on surfase RBCs
- b. Antigene RBCs
- c. Antibodies in serum

d. Antigene on Cells

446. False in OGGT because

- a. The patient restrict carbohydrate intake in the days or weeks before the test.
- b. The test done during an illness
- c. A full adult dose given to a person weighing less than 43 kg (94 lb),
- d. exaggerated glucoses
- e. **ALL**

447. Urine analysis related to

- a. Liver
- b. **Kidney**
- c. Heart
- d. Stomach

448. Etiology of increased neutrophil

- a. **Bacterial infection**
- b. Allergy
- c. Parasitic infection
- d. Viral infection

449. Treponema palladium is the cause of :

- a. T.B
- b. Gonorrhea
- c. **Syphilis**
- d. AIDS

450. Monospot test is done to diagnose

- a. **Infectious mononucleosis**
- b. Scarlet fever
- c. Rheumatic fever
- d. AIDs

451. Prolactin in female

- a. **Milk hormone**
- b. Oogenesis hormones
- c. Leutinizing hormones

d. Steroid Hormones

452. Vi Ag related to

- a. Capsul
- b. Somatic
- c. Flagella

453. Which of the following enzyme detect in the condition liver and bone disease:

- a. Alkaline phosphatase(ALP)
- b. AST
- c. ALT
- d. GGT

454. Use to determined Kidney function

- a. Creatinin
- b. Amylase
- c. Transaminases
- d. Creatin kinase

455. Test to detect whether red blood cells are more likely to break down.

- a. Spherocytosis
- b. Osmatic fragility
- c. CBC
- d. Coombs test

456. Which of the following enzyme detect in the condition liver and heart disease:

- a. Alkaline phosphatase(ALP)
- b. AST
- c. ALT
- d. GGT

يعني نقول أن

AST= خاصة بالكبد والقلب

ALP= خاصة بالكبد والعظام

ALT= خاصة بالكبد فقط

الزفطاري

1- Bacillary dysentery caused by

a- Shigella

b- Cambylobacter

c- Chylamidia

d- Salmonella

2- Stool sample containing Pus due to

a. Amoebic dysentery

b. Bacillary dysentery

c. Giardiasis

d. Ascaris lumbercoid

3- bloody stool caused by

a- Shigella

b- Cambylobacter

c- Chylamidia

d- Salmonella

4- one of the following is non motile gram -ve rods

a- Shigella

b- Cambylobacter

c- Chylamidia

d- Salmonella

5- different between Salmonella and Shigella:

a. Indol test

b. Motility

c. Gram stain

d. Catalase

6- Hemophilus influenza cause

a- Scarlet fever

b- Q fever

c- Trachoma

d- Pneumonia

7- Hemophilus influenza need the following factor to grow

a-

c- X and V factor

c- chocolate agar

d-

8- Hemophilus influenza grow best well on

a-

b-

c- chocolate agar

d-

Bacillary dysentery

stool pus

stool Blood

shigella

non motile

gm -ve

الاختلاف بين السالمونيلا

بكتيريا انفلونزا

التهاب رئوي

عروفا

في حالة وجود العامل X و V

X

لا تتسبب عن ضاحك وعلم

bacterial disease and stain

20

9-in co2 enriched atmosphere which of the following grow

a-.....

b-.....

c- hemophilus influenza

d-.....

نمو في وسط

pneumonia

factor → x & v factor

H-influenza

cholelithiasis

co2 atmosphere

10-Rice watery stool can caused by

a-Salmonella

b-Vibrio cholera

c-Shigella

d-E.coli

لا يشبه صلبة البرز

-ve شحنة

11-one of the following is motile gram -ve rods

a-Shigella

b- Cambylobacter

c-vibro cholera

d- Salmonella

(psedomonus aerogenus)

Vibrio cholera

Salmonella

Rice

12- Which of the following organism are capsulated

a-E.coli

b-Salmonella

c-Klebsiella

13-klebsiella cause

a-.....

b-pneumonia

c-.....

كبسولة في نفسه

شدة الكبسولة

14- Ganital disease can caused by the following

a-Gonorrhea only

b-Trichomonas only

c-Gonorrhea&Trichomonas vaginalis

d-none of the above

15-Transmit through sexual intercourse

a. Tricurus tricurus

b. N.gonorrhoea& Trichomonas vaginalis

c. Sternglyoids stercoralis

d. S.hematobium

e. Ascaris lumbercoid

16- vaginal swab is required for the most successful isolation from women

a-Gonorrhea only

b-Trichomonas vaginalis only

c-Gonorrhea&Trichomonas vaginalis

d-none of the above

فحصا فميا

هو نوريا وثريا يكون نفسا

قورونيا وثريا

نقل عن طريق الجماع

gh

نموا في نفسا فميا نفسا فقط

التفريق

17- In the 1923, Alexander Fleming discovered the penicillin from

- a-Penicillium sp
- b-Candida sp
- c-Aspergillus s
- d-Streptococci

~~For~~ For For For

18-The cause of chaga's disease

- a-Trypanosomagambiense
b-Trypanosomarhodesiense

مرضی شاہ
شاہ

into T. CV421

c-*Trypanosoma cruzi*

d-Leishmania

19- Cause Kala-azar black fever caused by

- a-Leishmaniatropica
- b-Leishmania braziliense
- c-Leishmania donovani
- d-Leishmania Mexicana

1-2
kala-azar - black fever

domina

Le. donovani

20- Cause oriental sore

- a-Plasmodium ovale
b-Leishmania tropica
c-Leishmania donovani
d-Trypanosome rhodesiense

عرضه لي للسود
!ادندل

oriental = tropica

ترویج اور نیٹال

21- Infectious mononucleosis is caused by:

- a- Echo virus
- b- Coxsaki virus
- c- Epstein Barr virus EBV
- d- Cytomegalo virus

الفلسفہ مولو نیوکوز

22-Paul-Bunnell test is positive in

- a-Multiple myeloma
- b-Hodgkin's disease
- c-Infectious mononucleosis
- d- All of the above

۱. infectious / Mononucleosis (یعنی ہوا کشی)

① Paul - Bunnel +
② mono spot test

23-monospot test is done to diagnose of

- a-Multiple myeloma
b-Hodgkin's disease
c-Infectious mononucleosis
d- All of the above

24- The contamination of lens of microscope which cause eye infection?

- B.anthrax
- S.pyogenes
- Staph.aureus OR
- Clostridiumtetania

Wichtig ist

acanthoameba

خدمة العملاء

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

بِقِسْرٍا قَسِيْب ثَلُوْث فِى دَسْةِ الْعِيْنِ

لا تتسبب من صالح

bacterial disease and stain

25- Salmonella causes.

a. Food poisoning

b. Scarlet fever

c. Pharyngitis

d. Whooping cough

26- all are of the following is true for salmonella except

a-

b- oxidase positive

c-

27- Food poisoning caused by:

a. Clostridium tetani

b. E.coli

c. Cambylobacter

d. Clostridium perfringens

28- Gas gangrene cause by:

a- Clostridium botulism

b- Clostridium tetani

c- Clostridium perfringer

29- all are true about clostridium botulism except

a-

b- gas gangrene

c-

30- Trachoma is caused by:

a- Mycoplasma

b- Chlamydia

c- Richettsia

d- Mycobacterium

31- Pathogens can enter the body through ?

a- Dry skin

b- Wet skin

c- Unbroken skin

d- Scratch skin

32- The process of pathogenic infection to human

a. Adherences - Penetration - Multiplication

b. Penetration - Adherences - Multiplication

c. Multiplication - Adherences - Penetration

33- What of the following is TRUE about Bacillus anthracis?

a. Causes anthrax disease

b. Gram positive

c. H2S

سبب الاكل

Salmonella

برفنجيا

perfringens

Perfringer

① Food poisoning

② Gas gangrene

perfringer

Trachoma = chlamydia

تراكوما

المرض يحدث في

طريقة العدوى هي

هذا الجسم القوي

APM

العدوى

العدوى هي العدوى
بواسطة البكتيريا
التي تسمى

لا تلتصقنا من صلبه
bacterial disease and stain
مستعمرات
تقوى اللون المر أبيض



34- gram +ve rods give gray colony color

- a.
- b. bacillus anthracis
- c.

35- one is false about Bacillus anthracis?

- a. (non motile, gram+ve)
- b. motile
- c.

36- Enterobacteriaceae can infection in:

- a. Urinary tract only
- b. Steam blood-urinary tract- chest
- c. Gastrointestinal disease only
- d. Urinary tract- Gastrointestinal disease

37- Appositive citrate test reaction is obtained with

- a. Enterobacter
- b. Cambylobacter
- c. Chylamidia
- d. Salmonella

38- Bacteria cause Pharyngitis and (scarlet fever)

- a. Staph. aureus
- b. Diphtheria
- c. TB
- d. Streptococcus pyogenes

39- Which organisms cause syphilis

- a. Chlostridium
- b. Salmonella
- c. Shigella
- d. Tryponema palidum
- e. Haemophillus

40- VDRL for:

- a. syphilis
- b.

41- Bordetella pertussis is the cause of:

- a. Scarlet fever
- b. Whooping cough
- c. Rheumatic fever
- d. Pneumonia

لا تلمسونا من صالح

bacterial disease and stain

التي تسمى على الجلد

حرق حرق

42-staph. Found in skin called :

e.

a.

b. staphylococcus epiderms

c.

43-cultur media serialized by

a.

b. autoclave (121 c- 20 mint.)

44- Nutrient agar is

a- Basic media

b- Differential media

c- Selective media

d- Enriched media

45- all of theses selective media except

a.

b. nutrent agar (basic)

46- XLD is

e.

a. selective media

b. nutrent agar (basic)

47- urine sample culture in

a- CLED agar and blood agar

b- CLED agar

c- MacConky agar

d- XLD

48- Media used in antibiotic sensitivity

a- blood agar

b- MaConky

c- Mueller Hinton

d- XLD

49- media use for differentiated between L.F and N.L.F is

e.

a. maconky agar

b.

50- On MacConkey agar Shigella and salmonella produce colonies its color is

a- colorless

b- Red

c- Pink

d- White

51- Amino acid used in indole test

- a-Tryptophane
- b-Cystin
- c-Phenylalanin
- d-Serin

ترابي بيو فون

أي صبغة انظر سترم أكثر شيعون

52- which stain most commonly used in microbiology

- a. Leishman stain
- b. Romanosky stain
- c. Gram stain
- d. Gimsa stain
- e. ALL

الميكروب

لا سترم في

53- Which of the following does not used in ziehl-nelsen stain?

- a-Carbon fuchsine
- b-Acid alcohol
- c-Methylene blue
- d-Malachite green
- e- crystal violet

Grn

ذلك للملون

صبغة الهم فحصة در

54- Zile-Neelsen stain for

- a. Mycobacteria
- b. E.coli
- c. Corynebacterium diphtheria
- d. Salmonella

منه الباني ما يوز صبغة
 في سترم

لا سترم حرام احسنه

55-The following microorganism will not take the gram stain

- a-E.coli
- b-Streptococcus
- c-Staphylococci
- d-Mycobacterium sp

حرام

56-strict aerobe bacteria

- a-E.coli
- b-Streptococcus
- c-Staphylococci
- d-Mycobacteria

57- Albert stain is used to diagnose

- a-Mycobacterium tuberculosis
- b-Mycoblasma
- c-Enterobacteriaceae
- d-Corynebacterium diphtheria

دقتنا

صبغة هيرت

لا تفسدوا من صالح

bacterial disease and stain

Albert stain
Elek test

58- ELEK test use for

a-Neisseria

b-Diphtheria

c-Brodella

d-Proteus

59- Chinese litter seen in :

a- C. diphtheria

b-S.pyogenes

c-Staph aureus

60- Morphological feature of C. diphtheria are best developed on

a-Blood agar

b- Blood tellurite agar

c- Loeffler serum slope

d- Chocolate agar

61- Give double zone in blood agar :

a- α -hemolytic streptococci

b- β -hemolytic streptococci

c-All

d-None

62- One is not a Romanowsky stain

a- Fields stain

b- Gram stain

c- Geimsa stain

d-leishman stain

63- Romanowsky stain consists of

a- Eosin + Alkaline Methylene blue

b- Eosin only

c- Methylene blue only

d- Indian Ink

64- lieshmania stained by

a-field stain

b-geimsa stain

c-A or B

d-lieshmania stain

e-gram stain

c. diphtheria
chinese litter
loeffler

طاهر صبغة رومانسکا

رومانسکا و سکی

عسین بلو

Eosin

فیلد و جیسا

ب

لا تفسونا من صالح د

bacterial disease and stain

الإستروكوكس

65-Test used to assist the identification of Enterococci (Enterococcus sp.)

- a. Litmus milk decolorization
- b. Coagulase
- c. Citrate
- d. Bile solubility
- e. Indole

٤٤

بدرت في الزواج

66- Enterococci are typically arranged in pairs and can not be or difficult differentiated from

- a- Streptococci
- b- Staphylococci
- c- Spirichete
- d- Mrningococci

إدني أنه يبرس

أفيا تالدي

67- CAMP is confirmatory test for

- a. Streptococcus Group A
- b. Streptococcus Group B
- c. Streptococcus agalactia
- d. B and c

إدني فقط
الأفيا تالدي

CAMP