INICET

Question Paper



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INI CET 2022 (Nov)

Question Paper

Microbiology

(Based on Memory Recall)

Q1. Match the following disease/organism which stains used to demonstrate them-

Column A	Column B
Malaria	ZN stain
Tuberculosis	Fite faraco stain
Leprosy	Gram stain
Actinomyces	Giemsa stain

A) Malaria - Giemsa stain; Tuberculosis - ZN stain; Leprosy - Fite faraco stain; Actinomyces - Gram stain
B) Leprosy - Fite faraco stain; Actinomyces - Gram stain; Tuberculosis - Giemsa stain; Malaria - ZN stain
C) Both A and B
D) None of the above

Correct answer : A

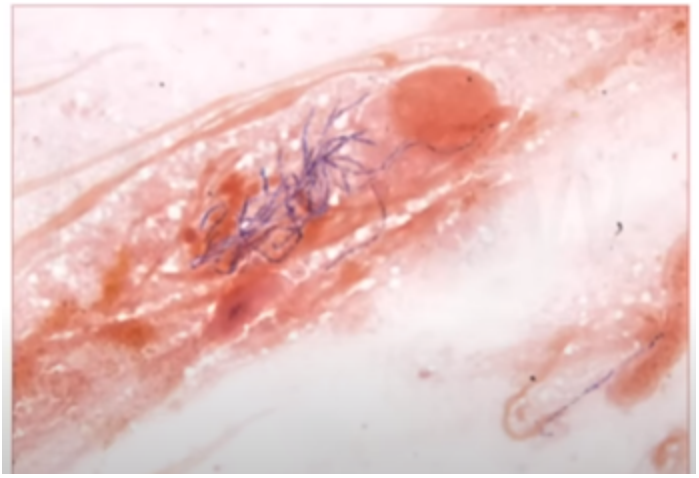
Q2. Microscopy technique that can be utilized to produce high contrast image of transparent specimens, such as living cells is :

A) Phase contrast microscopy
B) Dark ground
C) Polarized light microscopy
D) Electron microscopy

Correct answer : A

Q3. A microbiologist performed a tissue gram stain and found thin, filamentous bacteria shown in the figure. What other staining technique should be done to confirm the diagnosis as Nocardia ?

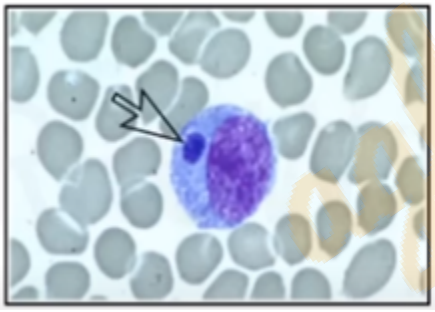
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A) Silver impregnation
B) Albert stain
C) PAS
D) Modified acid fast stain

Correct answer : D

Q4. Peripheral blood smear of a patient presenting with fever, headache and Malaise showed monocytes with morula as shown in the figure. Which of the following is the likely cause of the symptoms in the patient?



A) Rickettsia conorii
B) Rickettsia akari
C) Ehrlichia chaffeensis
D) Anaplasma phagocytophilum

Correct answer : C

Q5. A forest Guard returned from the forest and a few days later presented with the skin lesion as shown (figure). Which of the following is the likely diagnosis?

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A) RMSF
B) Scrub typhus
C) Malaria
D) Covid 19

Correct answer : B

Q6. A 30 year old man diagnosed with second syphilis treated treated with benzathine penicillin. 6 hour after the penicillin dose, patient develops fever, chills, flushing, myalgias, Headache and tachycardia Jarisch Herxheimer reaction is diagnosed. All of the following cytokines are responsible except?

A) IL - 6
B) IL - 8
C) TNF - alpha
D) IFN - Gamma

Correct answer : D

Q7. Hereditary angioneurotic edema is due to deficiency of which of the following?

A) C5 - C9
B) C1 inhibitor
C) DAF
D) CD59

Correct answer : B

Q8. A, B cell can express 2 classes of antibodies as its receptors, that is IgM and IgD having the same antigenic specificity. This is due to which of the following phenomena?

A) Allelic exclusion
B) Somatic hypermutation
C) Alternate RNA splicing
D) Affinity maturation

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Correct answer : C

Q9. Which of the following cytokines is not involved in our Th1 response ?

A) IL - 4
B) IL - 2
C) IL - 12
D) IFN - Gamma

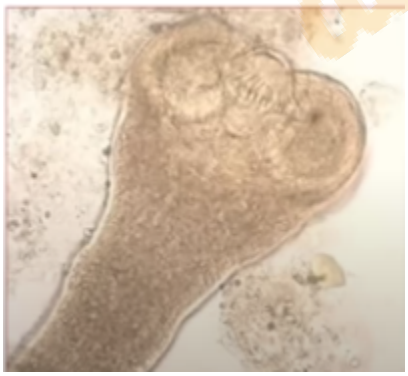
Correct answer : A

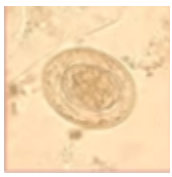
Q10. A four year old boy has had high fever for the last 5 days. His mother reports to the emergency room that her son has had an episode of seizures and altered sensorium the night before. Peripheral blood smears show the following finding. How will you manage this patient?

A) Clindamycin 600 mg IV 8 hourly for 7 days
B) Artesunate 2.4 mg/kg IV at 0, 12, 24 and 48 hours, followed by atovaquone proguanil for 3 days
C) Injection doxycycline 100 mg IV for 7 days
D) Injection chloroquine IM 8 hourly for 3 days

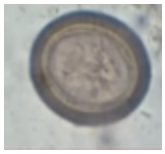
Correct answer : B

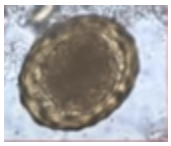
Q11.A 10 year old boy notices the passage of a white thread like worm in stool . Microscopic examination of the anterior end of the worm is shown in the figure. The segments of the worm have breadth greater than length. Which of the following eggs would you likely see in stool?



A) 

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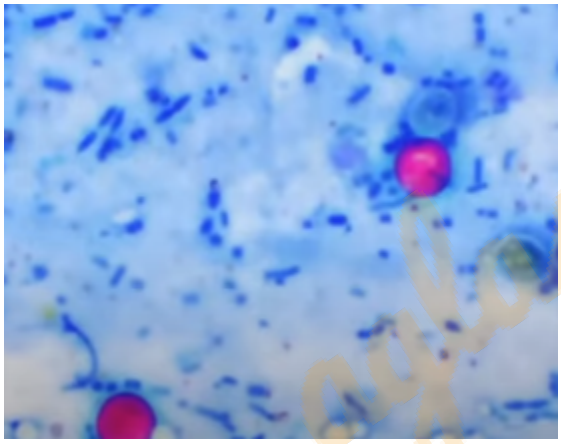
B) 

C) 

D) 

Correct answer : A

Q12. An HIV positive male with a CD4 count of 145/cumm reported to the OPD with a complaint of severe watery diarrhea for the last 3 days. Acid fast stain of the stool sample demonstrated acid fast round structures around the size of 4 - 6 Microns. Which of the following is the likely etiology of the symptoms?



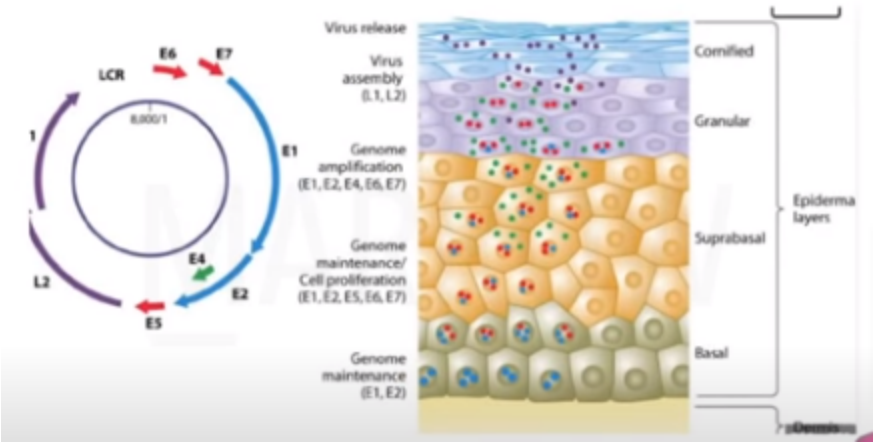
A) Cryptosporidium
B) Isospora
C) Cyclospora
D) Sarcocystis

Correct answer : A

Q13. Figure shows the life cycle of a virus in the human host. Which of the following viral proteins is oncogenic?

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A) L1 and L2
B) E1, E2 E4
C) E6, E7
D) E1, E2, E5

Correct answer : C

Q14. SARS Covid can be deducted by all except:

A) Rapid antigen test to detect spike protein
B) RTPCR to detect RNA
C) Southern blotting
D) ELISA to detect spike protein

Correct answer : C

Q15. A patient present with jaundice. Serum analysis reveals - HDV RNA levels : 4.5 x 10^{-5}; HBV DNA levels 10 x 10^{5} . Which of the following tell us superinfection of HDV and not a Coinfection of HBV and HDV?

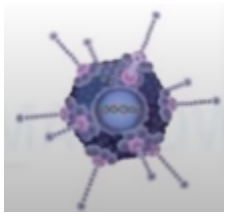
A) IgM Anti - HBc positive
B) IgG Anti - HBc positive
C) Anti - HBs positive
D) HDV RNA copies

Correct answer : A

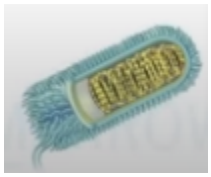
Q16. Which of the following viruses exhibits genetic re-assortment similar to that of the influenza virus?

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A) 

B) 

C) 

D) 

Correct answer : A

Q17. Incorrect regarding Parvovirus B19 disease association with respective patients-

A) Child - Erythema infectiosum
B) Hemolytic anemia - Aplastic crisis
C) Pregnant - Non immune fetal hydrops
D) Young females - Polymyalgia rheumatica

Correct answer : D

Q18. Vesicular rash is seen in -

A) HFMD
B) Roseola infantum
C) Dengue
D) Zika

Correct answer : A

Q19. Transmission of which of the following viral infections has been reported in India?

A) Ebola

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B) Hendra
C) West Nile fever
D) Yellow fever

Correct answer : C

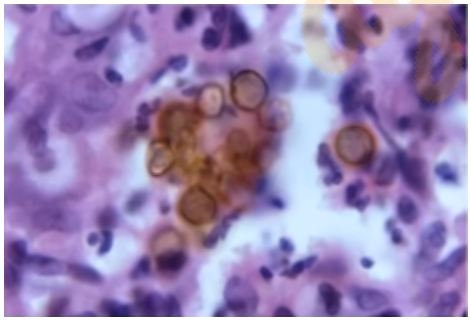
Q20. 6 weeks following trauma, a 30 year old male develops lesions as shown in the figure. Infection with which one doesn't cause this?



A) Sporothrix
B) Staphylococcus aureus
C) Mycobacterium marinum
D) Nocardia asteroides

Correct answer : B

Q21. A forest worker develops skin lesions over the forearm. The initiative started as macules then became nodular. Biopsy Examination of lesions is shown in the figure. True about the likely organism/diagnosis ?

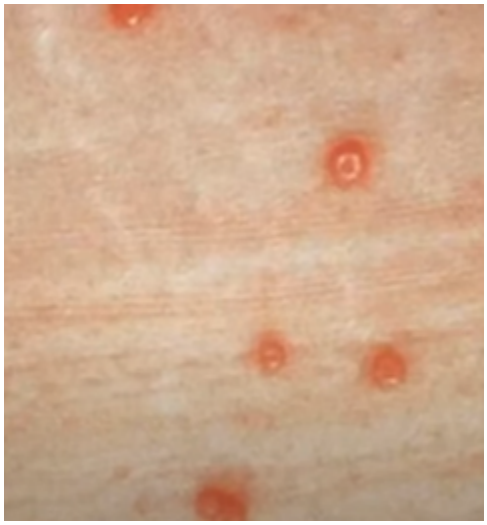


A) These bodies are the fungi engulfed by Macrophages.
B) Infection does not involve the underlying fascia, tendons and muscle
C) They are dimorphic, and hence are found inside the body in yeast form.
D) Angioinvasion can occur in patients of hematological malignancies.

Correct answer : B

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Q22. A patient presents with lesions on the trunk as shown in the figure. Which of the following will be seen in histopathology?



A) Torres bodies
B) Multinucleated giant cells
C) Henderson Paterson bodies
D) Aschoff bodies

Correct answer : C

Q23. Which of the following will kill all microorganisms including spores?

1. **Pasteurization**
2. **ETO**
3. **Formaldehyde**
4. **Ortho - phthalaldehyde**

A) 1 and 2
B) 2 and 3
C) 2,3 and 4
D) 1,2,3 and 4

Correct answer : C

Q24. Alcohol based hand rubs should not be used?

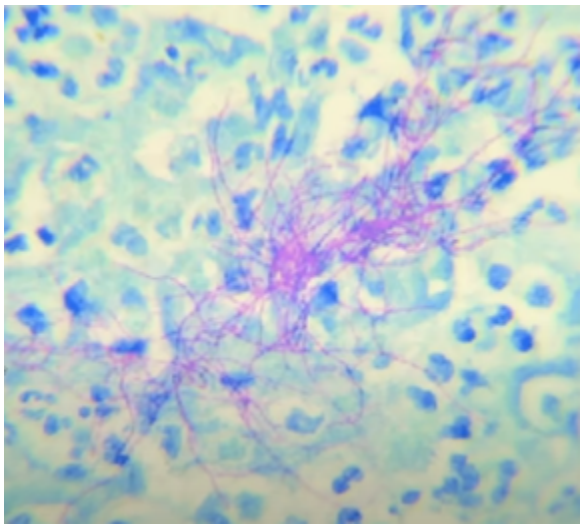
A) Before touching a patient
B) After touching a patient
C) After touching patient's surrounding
D) When hand are visibly soiled

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Correct answer : D

Q25. Acid fast stains of a specimen showed the following microscopic appearance. Which of the following are the likely organisms seen in the spiceman?



A) Mycobacterium tuberculosis
B) Nocardia brasiliensis
C) Actinomyces israelii
D) Mycobacterium leprae

Correct answer : B

Q26. Which of the following is/are sporicidal?

1. **Plasma**
2. **ETO**
3. **Formaldehyde**
4. **Ortho - phthalaldehyde**

A) 1 only
B) 1 and 2
C) 1,2,3
D) 1,2,3 and 4

Correct answer : D

Q27. Subcutaneous nodule lymphatic involvement is seen in all except:

A) Sporotrichosis
B) Corynebacterium minutissimum

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C) Mycobacterium marinum/Staph aureus
D) Nocardia

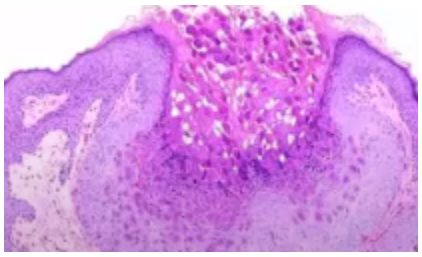
Correct answer : D

Q28. Choose the agent which act both as disinfectant and antiseptic

A) Ethanol
B) Glutaraldehyde
C) Orthophthaldehyde
D) Sterilization

Correct answer : A

Q29. Inclusion bodies shown in the image is seen in



A) Molluscum contagiosum
B) Yellow fever
C) Herpes simplex virus
D) Rabies

Correct answer : A

Q30. Match the following:

A. Clara cells	1. Liver
B. Parietal cells	2. Bronchiole
C. Dust cells	3. Stomach fundus
D. Kupffer cells	4. Lung

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A) A-2, B-3, C-4, D-1
B) A-1, B-4, C-2, D-3
C) A-3, B-2, C-4, D-1
D) None of the above

Correct answer : A

Q31. Receptor for EBV?

A) CD19
B) CD21
C) CD22
D) CD20

Correct answer : B

Q32. All causes non - immune hydrops fetalis except

A) Syphilis
B) HIV
C) CMV
D) Toxoplasma

Correct answer : B

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