2106000102030101-S
EXAMINATION MARCH-APRIL 2024
BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (SECOND YEAR)
MICROBIOLOGY (PAPER - I) (NEW) - LEVEL 3 OMR

[Time: As Per Schedule] **[Max. Marks:100]**

Instructions:
1. **Fill up strictly the following details on your answer book**
   a. Name of the Examination : **BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (SECOND YEAR)**
   b. Name of the Subject : **MICROBIOLOGY (PAPER - I) (NEW) - LEVEL 3 OMR**
   c. Subject Code No : **2106000102030101-S**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.
5. Draw a label Diagram wherever required with blue pen/pencil only
6. Write Heading of each questions properly
7. Write legibly

Seat No:

Student's Signature

Section 01

(General Microbiology, Immunology, Infections of Blood stream & cardiovascular system, Gastro intestinal react & Hepatobilliary system)

Q.1 **1×20=20**

MCQs:

1. The interval between the entry of the parasite into the vector and the time it takes to become capable of transmitting the infection is called the
   A. Intrinsic incubation period
   B. Extrinsic incubation period
   C. Both (A) and (B)
   D. None of the above

2. Sandfly is the vector for_____ disease
   A. Amebiasis B. Trichomoniasis
   C. Kala-Azar D. Chagas

3. Blood transfusion malaria occurs due to
   A. Sporozoite B. Trophozoite
   C. Merozoite D. Hypnozoite

4. The resolving power of electron microscope is
   A. 0.2 nm B. 0.3 nm
   C. 0.1 nm D. 0.4 nm

5. Hanging drop preparation demonstrates_____of bacteria
   A. Flagella B. Capsule
   C. Spore D. None of the above

6. Reynolds-Braude phenomenon is used to differentiate species of
   A. Candida B. Cryptococcus
   C. Both (A) and (B) D. None of the above

7. The normal habitat of Giardia lamblia is
   A. Colon B. Large intestine
   C. Duodenum D. Vagina

8. The commonest agent of endocarditis associated with intravenous drug abuse is
   A. Viridens Streptococci B. Coxiella burnetii
   C. Staphylococcus aureus D. Streptococcus epidermidis

9. DNA probe technology is used to
   A. Detect microbes in specimens
   B. Identification of culture isolates
   C. Identification of resistance markers
   D. All of the above

10. Eijkman test is done to detect
   A. Faecal Streptococci B. Faecal Escherichia coli
   C. Vibrio cholera D. Salmonella Typhi

11. Whey agglutination test detects
    A. Tuberculosis B. Brucellosis
    C. Salmonellosis D. Leptospirosis

12. All the following are live vaccines except
    A. BCG vaccine B. Measles vaccine
    C. Rubella vaccine D. Hepatitis B vaccine

13. Hepatitis A virus belongs to_____family.
    A. Picornaviridae B. Flaviviridae
    C. Calciviridae D. Hepadnaviridae

14. Hyperacute rejection of grafts occurs due to the following immune mechanism
    A. Chronic delayed type hypersensitivity mediated
    B. Cytotoxic T cell mediated
    C. Preformed antibodies mediated
    D. All of the above

15. Role of SPS in blood culture bottle is
    A. Bacteriostatic B. Antiviral
    C. Anticoagulant D. Antifungal

16. All are HACEK group of bacteria except
    A. Eikenella corrodens B. Acinetobacter baumannii
    C. Cardio bacterium hominis D. Kingella kingae

17. Potassium hydroxide (KOH 10-20%) is used to prepare wet mount for detection of fungus in skin scrapings. The role of KOH in this wet mount is
    A. To preserve the fungus
    B. To digest the keratin
    C. KOH stabilizes the morphology of the fungus
    D. KOH acts as a buffer adjusting the pH

18. A positive tourniquet test is a useful criteria to support clinical diagnosis of
    A. Chikungunia fever
    B. Dengue haemorrhagic fever
    C. Rubella
    D. Chicken pox

19. Which of these trematode is a intestinal trematode
    A. Schistosoma mansoni
    B. Fasciolopsis buski
    C. Clonorchis sinensis
    D. Paragonimus westermani

20. Kauffmann-white scheme is a classification based on antigenic structure of the organism and is used for
    A. Shigella species
    B. Salmonella species
    C. Klebsiella species
    D. All members of Enterobacteriaceae

Section 02

(General Microbiology, Immunology)

Q.2 **Essay type question / clinical scenario based.** **12**

Define Complement. Write detail about classical Pathway. Discuss effector functions of Compliment and compliment deficiency associated Diseases.

Q.3 **Short Note (any 4 out of 5)** **7×4 =28**

1. What is the principle of ELISA? Discuss types of ELISA
2. Mutation
3. Write in detail about Replication Of Viruses
4. What is bacterial growth curve? Write in detail about the factors that affect the growth of the bacteria?
5. Write in detail about Principle & application of Fluorescence Microscope

Section 03

(Infections of Blood stream & Cardiovascular system, Gastro intestinal react & Hepatobilliary system)

Q.4 **Essay type question / clinical scenario based.** **12**

A 20 year old Boy admitted to the ward with History of remittent fever which gradually increased over the past 10 days. He was admitted with Complaints of loss of appetite, pain in abdomen, general weakness, and step-ladder pattern of remittent Fever. On examination, he was Found

high grade fever with pallor tongue, mild splenomegaly and abdomen tenderness. **1** **1**

1. Define Pyrexia of unknown origin **4**
2. What is your Probable Diagnosis **4+2**
3. Write pathogenesis of causative agent.
4. Write about laboratory test methods used from sample collection to report interpretation & treatment modalities for above patient

Q.5 Short Note (any 4 out of 5) **7×4 =28**

1. Name the filarial nematodes. Describe the life cycle, laboratory diagnosis of Bancroftian filariasis.

2. Name the virus transmitted parenterally. Describe the pathogenesis, laboratory diagnosis of HCV.

3. Classify Trepanises. Describe the pathogenesis & laboratory diagnosis of leptospirosis.

4. Name the bacterial etiological agents of food-poisoning. Describe the strategy involved in diagnosing of food-poisoning.

5. Giardiasis

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