

Second Professional BHMS Degree Regular Examinations July 2025
Pathology and Microbiology - Paper II
(2022 Scheme)

Time: 3 Hours

Total marks:100

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

1. Multiple Choice Questions**(10x1=10)**

The Answers to MCQ questions (Q.No. i to Q.No. x) shall be written continuously on the first two writing sheets (ie Page No. 3 & 4) only

- i. Type of infection affecting persons simultaneously in a geographically defined area is
 - a) Sporadic infection
 - b) Epidemic infection
 - c) Endemic infection
 - d) Pandemic infection
- ii. Which among the following is **NOT** a method of sterilization by Moist heat
 - a) Pasteurization
 - b) Inspissation
 - c) Tyndallisation
 - d) Incineration
- iii. Food borne botulism is characterized by
 - a) Paralytic disease
 - b) Pseudomembranous colitis
 - c) Trismus
 - d) Vomiting and diarrhoea
- iv. ASO titer of more than units is considered significant and suggest either recent or recurrent infection with Streptococci
 - a) 100 units
 - b) 150 units
 - c) 200 units
 - d) 250 units
- v. Infection of Entamoeba Histolytica is acquired by ingestion of
 - a) Precyst
 - b) Metacyst
 - c) Trophozoite
 - d) Mature quadrinucleate cysts
- vi. Brick shaped virus is
 - a) Pox virus
 - b) Hepatitis virus
 - c) Tobacco Mosaic virus
 - d) Rabies virus
- vii. Which bacteria causes plague
 - a) Shigella
 - b) Salmonella
 - c) Yersinia Pestis
 - d) Bacillus Anthracis
- viii. Paul Bunnell test is a standard diagnostic procedure for
 - a) Measles
 - b) Rabies
 - c) Chicken pox
 - d) Infectious mononucleosis
- ix. The mechanism of action of Poliomyelitis virus is
 - a) Injures neuronal processes like axons and dendrites
 - b) Multiplies in neurons and destroys them with degeneration of Nissl bodies
 - c) Release acetyl choline at synapses and neuromuscular junction
 - d) Blocks release of Neurotransmitters Glycine and GABA abolishing spinal inhibition
- x. Laboratory diagnosis of Filariasis includes the following **EXCEPT**
 - a) Biopsy of lymph node
 - b) Peripheral blood examination
 - c) Stool microscopic examination
 - d) PCR

(PTO)

Short Answer questions**(8x5=40)**

2. Describe culture medias based on functional requirements with examples
3. Differentiate the features of Exotoxin and Endotoxin
4. Explain the pathogenesis of Pneumococcus
5. Describe the steps of viral replication
6. Explain the pathogenicity of Escherichia Coli. Describe the laboratory diagnosis of Escherichia Coli. (2+3)
7. Describe the clinical manifestations of Primary Syphilis
8. Describe the clinical stages of Rabies.
9. State the characteristics of Fungi. Describe the laboratory diagnosis of Fungal infection. (2+3)

Long Answer Questions**(5x10=50)**

10. Describe the morphology of Corynebacterium diphtheriae. Explain the pathogenicity of Corynebacterium diphtheriae. (2+8)
11. Describe the pathogenicity of Leishmania Donovanii. Enumerate the Laboratory diagnosis of Leishmaniasis. (5+5)
12. A 27 year old male reported to the OPD with low grade fever, anorexia and loss of weight since few days. He was also having cough with expectoration for the past 6 months. Sputum examination revealed long, slender and beaded Acid fast bacilli.
 - a) What is the provisional diagnosis
 - b) Describe the pathogenesis of the organism
 - c) Explain the laboratory diagnosis in detail (1+5+4)
13. Describe the morphology of Hepatitis B virus. Enumerate the mode of transmission and the clinical features of Hepatitis B virus infection. (3+7)
14. Describe the life cycle of Taenia Solium.
