

Second Professional BHMS Degree Regular Examination, August 2024

Pathology and Microbiology (Hom UG-Path-M) Paper -11

(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

(10 x 1 = 10 marks)

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.

- Which method is employed for the isolation of bacteria in pure culture from clinical specimens
 - Liquid culture
 - Streak culture
 - Pour plate culture
 - Stab culture
- Which of the following terms describes an infection acquired in a hospital
 - Latent infection
 - Primary infection
 - Nosocomial infection
 - Zoonotic infection
- Clostridium species are
 - Aerobic bacteria
 - Anaerobic bacteria
 - Thermophilic bacteria
 - Psychrophilic bacteria
- Which bacteria can be identified using the Quellung reaction
 - Staphylococcus aureus
 - Streptococcus pneumoniae
 - Escherichia coli
 - Mycobacterium tuberculosis
- The 'brain-eating' amoeba refers to
 - Entamoeba gingivalis
 - Acanthamoeba
 - Giardia lamblia
 - Naegleria fowleri
- All of the following are intracytoplasmic inclusion bodies EXCEPT :
 - Negri bodies
 - Molluscum bodies
 - Cowdry type A bodies
 - Guarnieri bodies
- Which bacteria is transmitted through contaminated water and causes severe watery diarrhoea known as rice-water stools

- a) *Shigella dysenteriae*
 - b) *Salmonella typhi*
 - c) *Vibrio cholerae*
 - d) *Escherichia coli*
- viii) Which of the following associated with Epstein-Barr virus infection
- a) Burkitt lymphoma
 - b) Hepatocellular carcinoma
 - c) Malignant melanoma
 - d) Ewing sarcoma
- ix) Which characteristic finding is associated with measles
- a) Bitot's spots
 - b) Koplik spots
 - c) Rose spots
 - d) Café-au-lait spots
- x) Nasal polyps are seen in which infection ?
- a) Aspergillosis
 - b) Blastomycosis
 - c) Cryptococcosis
 - d) Rhinosporidiosis

Short Answer Questions

(8x5=40 marks)

2. Define culture media. State the differences between Enriched media and Enrichment media with examples.
3. Describe the pathogenicity of *Bacillus anthracis*
4. State the differences between Sterilisation and Disinfection. List the physical and chemical agents of Disinfection.
5. Describe the Human life cycle of *Plasmodium* species
6. Explain the pathogenesis of *Treponema pallidum*
7. Describe the clinical manifestations of Chicken-pox
8. Describe the pathogenesis of Primary tuberculosis
9. State the morphological differences between *Taenia saginata* and *Taenia solium*

Long Answer Questions

(5x10=50 marks)

10. Describe the morphology, pathogenesis and complications of *Corynebacterium diphtheriae*.
 11. Discuss the morphology and pathogenicity of *Entamoeba histolytica*.
 12. Explain the morphology, pathogenesis and clinical features of Human Immunodeficiency Virus.
 13. Describe the morphology, pathogenesis and clinical features of *Ascaris lumbricoides*.
 14. A young adult female has intense headache and abdominal discomfort since last 5 days. She has fever of remittent type with gradual rise in a step- ladder pattern. On examination, mild hepatomegaly was present.
- a) What is the most probable diagnosis? (1)

b) Describe the pathogenesis of this condition (4)

c) Explain the Laboratory diagnosis in detail. (5)
