

**SECOND PROFESSIONAL M.B.B.S. DEGREE EXAMINATION, APRIL 2007**

Faculty of Medicine

MICROBIOLOGY—Paper I (GENERAL BACTERIOLOGY, IMMUNOLOGY AND SYSTEMATIC BACTERIOLOGY)

Time : One Hour and a Half

Maximum : 32 Marks

*Draw diagrams wherever necessary.**Answer Sections A-II and B in separate answer-books.***Section A-II**

III. Draw and label :

- 1 Secretory IgA.
- 2 Gram stained smear in Meningococcal meningitis (C.S.F.)

(2 × 1 = 2 marks)

IV. Short answer questions :

- 1 *Four* culture media for mycobacterium tuberculosis.
- 2 *Four* common infections caused by staphylococcus aureus.
- 3 What is M.H.C. restriction ?
- 4 *Four* differences between 'T' and 'B' lymphocytes.

(4 × 1 = 4 marks)

V. Write short notes on :

- 1 Secondary Immune response.
- 2 Lysogenic conversion.
- 3 Bacillary Dysentery.

(3 × 2 = 6 marks)

Section B

VI. Read the following paragraph and answer the questions :—

A three-year old boy was admitted with fever, headache, projectile vomiting and fits. On examination, child febrile, neck stiffness present, altered sensorium seen. Lumbar puncture yielded turbid CSF under pressure.

- 1 What is the clinical diagnosis ?
- 2 Name *three* primary bacterial pathogens causing this clinical picture in a 3 year old.
- 3 Name *two* rapid methods for diagnosis of the above condition.

Turn over

- 4 How will you collect a sample of C.S.F., transport and store it ?
- 5 Describe the laboratory diagnosis required for the confirmation of the above case.
- 6 What is/are the drugs of choice ? Add a note on prophylaxis ?

($\frac{1}{2} + 1\frac{1}{2} + 1 + 1 + 5 + 1 = 10$ marks)

VII. Short answer questions :

- 1 What is significant bacteriuria and name *two* common urinary pathogens ?
- 2 Define monoclonal antibodies. Name *two* clinical applications.
- 3 Tetanus prophylaxis in newborn.
- 4 Transduction and its clinical significance.

(4 × 1 = 4 marks)

VIII. Write short notes on :

- 1 Tuberculin test.
- 2 Blood culture.
- 3 Scrub typhus.

(3 × 2 = 6 marks)