

SECOND PROFESSIONAL M.B.B.S. DEGREE EXAMINATION, JUNE 2007**MICROBIOLOGY—Paper I**

(New. Scheme)

Time : Two Hours

Maximum : 40 Marks

*Answer Section A and B in separate answer-books.**Answer all the questions.**Draw diagrams wherever necessary.**MCQs should be answered first in the response sheet provided.***Section A**

- I. Multiple Choice Questions. Single response type 8 (separate sheet attached). ($8 \times \frac{1}{2} = 4$ marks)
- II. Match the following. Single response type 8 (separate sheet attached). ($8 \times \frac{1}{2} = 4$ marks)
- III. Draw and label :
- 1 Immunoglobulin G.
 - 2 Streptococcus pyogenes in pus.
- ($2 \times 1 = 2$ marks)
- IV. Short answer questions :
- 1 Define Hapten.
 - 2 Define Sterilization.
 - 3 What are monoclonal antibiotics ?
 - 4 What is nosocomial infection ?
- ($4 \times 1 = 4$ marks)
- V. Write short notes on :
- 1 VDRL test.
 - 2 Bacterial toxins.
 - 3 Immune response.

(3 × 2 = 6 marks)

Section B

- VI. A 25 year old man has high grade fever of 5 days duration. On examination, he has splenomegaly and rose spots. Of late, he has been communing food from local restaurants since the past two weeks :
- 1 What is the probable diagnosis ? Mention the etiological agents.
 - 2 What is the pathogenesis of this disease ?

- 3 What investigations would you recommend in this case ? Why ?
- 4 How will you treat such a case ?
- 5 What is the prophylaxis ?

(2 + 3 + 2 + 1 + 2 = 10 marks)

VII. Short answer questions :

- 1 What is DPT ?
- 2 What is atopy ?
- 3 What is bacterial growth curve ?
- 4 What is Weil's disease ?

(4 × 1 = 4 marks)

VIII. Write short notes on :

- 1 Dark ground microscope.
- 2 Autoclave.
- 3 TRIC agents.

(3 × 2 = 6 marks)

MICROBIOLOGY—Paper I

I. MULTIPLE CHOICE QUESTIONS

Note.—(1) *Do not write anything on the question paper.*

(2) *Write your register number in the answer-sheet provided.*

(3) *Select one most appropriate response and encircle the corresponding alphabet against each question number in the answer-sheet provided.*

1. Which one of the following is a central lymphoid organs ?
(A) Thymus. (B) Lymph nodes.
(C) Spleen. (D) Liver.
2. Which one of the following is the largest immunoglobulin ?
(A) Ig G. (B) Ig M.
(C) Ig A. (D) Ig E.
3. Protein A is a group specific antigen found in the cell wall of :
(A) *Streptococcus pneumoniae*. (B) *Neisseria gonorrhoea*.
(C) *Staphylococcus aureus*. (D) *Corynebacterium diphtheriae*.
4. Which one of the following bacteria DOES NOT produce pigments ?
(A) *Streptococcus pneumoniae*. (B) *Serratia marcescens*.
(C) *Pseudomonas aeruginosa*. (D) *Staphylococcus aureus*.
5. The etiological agent of chaneroid is :
(A) *Treponema pallidum*. (B) *Haemophilus ducreyi*.
(C) *Haemophilus aegypticus*. (D) *Chlamydia trachomatis*.
6. Which one of the following mycobacteria causes swimming pool granuloma :
(A) *Mycobacterium marinum*. (B) *Mycobacterium ulcerans*.
(C) *Mycobacterium kansasii*. (D) *Mycobacterium fortuitum*.
7. Weil's disease is caused by :
(A) *Leptospira grippityphosa*. (B) *Leptospira icterohaemorrhagiae*.
(C) *Leptospira canicola*. (D) *Leptospira pomona*.
8. Which one of the following tests are used to differentiate between Eltor and classical vibrios ?
(A) Sucrose fermentation. (B) Chick red cell agglutination.
(C) Indole test. (D) Sensitivity to tetracycline.

(8 × ½ = 4 marks)

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II. Match the following :—

A

- A 1 Penicillin
2 Ciprofloxacin
3 Erythromycin
4 Amphotericin

A

- B 1 Mantoux test
2 Escherichia coli
3 Weil Felix test
4 Bacillus anthracis

B

- (a) Macrolide antibiotic.
(b) Aminoglycoside.
(c) Antifungal activity.
(d) Acts on bacterial cell wall.
(e) Inhibits DNA synthesis.

B

- (a) Rickettsial infections.
(b) Hide porteis disease.
(c) Mycobacterium tuberculosis.
(d) Urinary tract infections,
(e) Trachoma.

(8 × ½ = 4 marks)