



Reg. No. :

Name :

**Second Professional M.B.B.S. Examination, June 2009
(Old Scheme)**

MICROBIOLOGY (Paper – I)

(Includes General Bacteriology, Systemic Bacteriology and Immunology)

Time : 2 Hours

Max. Marks : 40

Instructions : 1) Answer *all* questions.

2) Draw diagrams *wherever* necessary.

3) MCQs should be **answered first** in the response sheet attached.

SECTION – A

I. Multiple choice questions :

(8 × ½ = 4 Marks)

1) Paul Ehrlich is known as father of

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|-------------------------|-----------------|
| a) Medical Microbiology | b) Chemotherapy |
| c) Antiseptic surgery | d) Immunology |

2) Biological control used for autoclave is

- | | |
|----------------------|--------------------------------|
| a) Bacillus subtilis | b) Clostridium tetani |
| c) Bacillus pumilis | d) Bacillus stearothermophilus |

3) A carrier who acquires the pathogen from another carrier is known as

- | | |
|------------------------|----------------------|
| a) Chronic carrier | b) Contact carrier |
| c) Paradoxical carrier | d) Temporary carrier |

4) Drug resistance in tuberculosis is due to

- | | |
|----------------|-------------------|
| a) Transposons | b) Mutation |
| c) Conjugation | d) Transformation |

5) Combined immunodeficiency is seen in

- | | |
|-----------------------------|-----------------------|
| a) Nezelof's syndrome | b) Bruton's disease |
| c) Chediak-Higashi syndrome | d) Di George syndrome |

P.T.O.



- 6) All the following are systemic autoimmune diseases EXCEPT
- a) Grave's disease
 - b) Rheumatoid arthritis
 - c) Sjogren's syndrome
 - d) SLE
- 7) Incomplete antibodies can be detected by
- a) Coomb's test
 - b) Widal test
 - c) Paul-Bunnell test
 - d) Kahn test
- 8) Brill Zinsser disease is caused by
- a) Rickettsia rickettsi
 - b) Rickettsia prowazaki
 - c) Rickettsia typhi
 - d) Rickettsia akari

II. Match the following :

(8 × ½ = 4 Marks)

- | | |
|---------------------------------------|------------------------------|
| A) 1) Calymmatobacterium granulomatis | a) Ovoya fever |
| 2) Bartonella bacilliformis | b) Woolsorter's disease |
| 3) Bacillus anthracis | c) Hemolytic-uremic syndrome |
| 4) Enterohemorrhagic E.coli | d) Donovanosis |
| B) 1) T-cells | A) Teichoic acid |
| 2) Graft rejection | B) Dipicolinic acid |
| 3) Bacterial spore | C) Lymphokines |
| 4) Gram positive bacteria | D) HLA typing |

III. Draw and label :

(2 × 1 = 2 Marks)

- 1) Parts of a Bacterial cell
- 2) Cellwall of Mycobacterium

IV. Short answer questions :

(4 × 1 = 4 Marks)

- 1) What is attenuation ?
- 2) What is isoimmunization ?
- 3) What is Enriched medium ?
- 4) Mention two specific tests for syphilis.



V. Write short notes on :

(3×2=6 Marks)

- 1) Tuberculin test
- 2) Serum sickness
- 3) TRIC agents

SECTION – B

VI. Read this paragraph and answer the following questions :

(1+2+2+5=10)

A twenty three year old lady presented with frequency in passing urine and pain during micturition along with fever for past 3 days. Microscopy of urine showed plenty of puscells and bacilli.

- a) What is your diagnosis ?
- b) Enumerate four common bacteria causing this condition.
- c) Mention four predisposing factors.
- d) How will you confirm the diagnosis in the laboratory ?

VII. Short answer questions :

(4×1=4 Marks)

- 1) Mention two obligate intracellular bacteria.
- 2) Enumerate two differences between Classical and Eltor vibrios.
- 3) What is artificial active immunity ?
- 4) Mention two cell wall acting antibiotics.

VIII. Write short notes on :

(3×2=6 Marks)

- 1) Mycobacterium avium- intracellulare
 - 2) Bacterial flagella
 - 3) Immunological surveillance.
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