

**MANIPAL UNIVERSITY****M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – AUGUST 2011****PAPER I: GENERAL MICROBIOLOGY AND IMMUNOLOGY**

Monday, August 08, 2011

Time: 14:00 – 17:00 Hrs.

Maximum Marks: 100

- ✍ **Answer ALL the questions.**
- ✍ **Write your answers that are brief, clear, relevant and legible.**
- ✍ **Illustrate your answers with neatly drawn and correctly labelled diagrams wherever necessary.**
1. Describe the mechanisms and role of cell mediated immune response in infectious diseases.  
(25 marks)
2. Explain in detail the bacterial virulence factors.  
(25 marks)
3. **Write short notes on:**
- 3A. Sterilization by moist heat
- 3B. Polymerase chain reaction and its uses
- 3C. Role of complement in health and disease
- 3D. Monoclonal antibodies
- 3E. Autoimmunity

(10×5 = 50 marks)



|          |  |  |  |  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|--|--|--|
| Reg. No. |  |  |  |  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|--|--|--|

## MANIPAL UNIVERSITY

M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – AUGUST 2011

PAPER II: SYSTEMATIC BACTERIOLOGY AND MYCOLOGY

Tuesday, August 09, 2011

Time: 14:00 – 17:00 Hrs.

Maximum Marks: 100

- ✍ **Answer ALL the questions.**
  - ✍ **Write your answers that are brief, clear, relevant and legible.**
  - ✍ **Illustrate your answers with neatly drawn and correctly labelled diagrams wherever necessary.**
1. Enumerate bacterial agents causing respiratory infections. Discuss laboratory diagnosis of primary atypical pneumonia. Write a note on pneumococcal vaccines.  
(25 marks)
  2. Discuss opportunistic fungal infections.  
(25 marks)
  3. **Write short notes on the following:**
    - 3A. Madura foot
    - 3B. Diarrheagenic E.coli
    - 3C. Laboratory diagnosis of pyogenic meningitis
    - 3D. Non gonococcal urethritis
    - 3E. MRSA

(10×5 = 50 marks)



Reg. No.

## MANIPAL UNIVERSITY

M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – AUGUST 2011

PAPER III: PARASITOLOGY AND VIROLOGY

Wednesday, August 10, 2011

Time: 14:00 – 17:00 Hrs.

Maximum Marks: 100

- ✍ Answer ALL the questions.
- ✍ Write your answers that are brief, clear, relevant and legible.
- ✍ Illustrate your answers with neatly drawn and correctly labelled diagrams wherever necessary.

1. Enumerate viruses causing central nervous system infections. Discuss virology, pathogenesis and laboratory diagnosis of poliomyelitis.

(25 marks)

2. Classify helminths. Discuss life cycle, pathogenesis and laboratory diagnosis of Taenia saginata.

(25 marks)

3. Write short notes on the following:

- 3A. Extraintestinal amoebiasis
- 3B. Laboratory diagnosis of human rabies
- 3C. Teratogenic viruses
- 3D. Malarial vaccines
- 3E. Hook worm infections

(10×5 = 50 marks)

