

MANIPAL UNIVERSITY

M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – FEBRUARY 2009

PAPER III: PARASITOLOGY AND VIROLOGY

Wednesday, February 04, 2009

Time available: 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 appropriate.

1. Classify Cestodes. Describe the morphology, life cycle and laboratory diagnosis of *Echinococcus granulosus*.

(25 marks)

2. Enumerate the hepatitis Viruses. Describe the laboratory diagnosis and prophylaxis of Hepatitis B virus infection.

(25 marks)

3. Write short notes on:

3A. Antigenic drift and shift in Influenza virus

3B. Japanese B encephalitis

3C. Varicella – Zoster virus

3D. *Cryptosporidium parvum*

3E. Malarial vaccines

(10×5 = 50 marks)



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MANIPAL UNIVERSITY

M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – AUGUST 2009

PAPER III: PARASITOLOGY AND VIROLOGY

Wednesday, August 05, 2009

Time available: 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 appropriate.

1. Classify Cestodes. Describe the life cycle, pathogenesis and laboratory diagnosis of *Taenia solium*.

(25 marks)

2. Discuss in detail the arboviral diseases in India.

(25 marks)

3. Write short notes on:

3A. Free living amoebae.

3B. Measles.

3C. Cytomegalovirus

3D. Prophylaxis of Rabies.

3E. Peripheral blood smear examination for parasitic infections.

(10×5 = 50 marks)



MANIPAL UNIVERSITY

M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – FEBRUARY 2010

PAPER III: PARASITOLOGY AND VIROLOGY

Wednesday, February 03, 2010

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 life cycle, pathogenesis and lab diagnosis of *Wuchereria bancrofti*.

(25 marks)

2. Enumerate the arboviral diseases found in India. Discuss the pathogenesis, epidemiology and prophylaxis of Japanese B encephalitis.

(25 marks)

3. Write short notes on:

3A. Human oncogenic viruses.

3B. Prophylaxis of HIV infection.

3C. Congenital rubella.

3D. Cryptosporidiosis.

3E. Larva migrans.

(10×5 = 50 marks)



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MANIPAL UNIVERSITY

M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – AUGUST 2009

PAPER II: SYSTEMATIC BACTERIOLOGY AND MYCOLOGY

Tuesday, August 04, 2009

Time available: 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 appropriate.

1. Describe the pathogenesis, laboratory diagnosis and prophylaxis of diphtheria. (25 marks)
2. Describe the pathogenesis and laboratory diagnosis of urinary tract infections. (25 marks)
3. Write short notes on:
 - 3A. Nocardiosis.
 - 3B. Phaeohyphomycosis.
 - 3C. Coccidioidomycosis.
 - 3D. Viridans Streptococci.
 - 3E. Penicilliosis.

(10×5 = 50 marks)



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MANIPAL UNIVERSITY

M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – FEBRUARY 2009

PAPER II: SYSTEMATIC BACTERIOLOGY AND MYCOLOGY

Tuesday, February 03, 2009

Time available: 14:00 – 17:00 Hrs.

Maximum Marks: 100

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

1. Describe the pathogenesis and laboratory diagnosis of shigellosis.

(25 marks)

2. Classify mycobacteria. Describe the pathogenesis and laboratory diagnosis of Infections caused by atypical mycobacteria.

(25 marks)

3. Write short notes on:

3A. Aspergillosis

3B. Interpretation of serological tests for syphilis

3C. *Sporothrix schenckii*

3D. Laboratory diagnosis of dermatophytoses

3E. Drug resistance in salmonella

(10×5 = 50 marks)



Reg. No.

MANIPAL UNIVERSITY

M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – FEBRUARY 2010
PAPER II: SYSTEMATIC BACTERIOLOGY AND MYCOLOGY

Tuesday, February 02, 2010

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 pathogenesis and laboratory diagnosis of pulmonary tuberculosis. (25 marks)

2. Describe the pathogenesis and laboratory diagnosis of dermatophytoses. (25 marks)

3. Write short notes on:

3A. Methicillin resistant *Staphylococcus aureus*.

3B. Salmonella carriers.

3C. Mycotoxins.

3D. VDRL test.

3E. Prophylaxis of tetanus.

(10×5 = 50 marks)



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M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – FEBRUARY 2009

PAPER II: SYSTEMATIC BACTERIOLOGY AND MYCOLOGY

Tuesday, February 03, 2009

Time available: 14:00 – 17:00 Hrs.

Maximum Marks: 100

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

1. Describe the pathogenesis and laboratory diagnosis of shigellosis. (25 marks)

2. Classify mycobacteria. Describe the pathogenesis and laboratory diagnosis of Infections caused by atypical mycobacteria. (25 marks)

3. Write short notes on:

3A. Aspergillosis

3B. Interpretation of serological tests for syphilis

3C. *Sporothrix schenckii*

3D. Laboratory diagnosis of dermatophytoses

3E. Drug resistance in salmonella

(10×5 = 50 marks)



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MANIPAL UNIVERSITY

M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – AUGUST 2010

PAPER III: VIROLOGY AND PARASITOLOGY

Wednesday, August 04, 2010

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.

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1. Classify Arboviruses. Discuss the common arboviral diseases prevalent in India.
(25 marks)
2. Classify nematodes. Describe the life cycle, pathogenesis and laboratory diagnosis of *Wuchereria bancrofti*.
(25 marks)
3. Write short notes on:
 - 3A. Oncogenic viruses
 - 3B. Laboratory diagnosis of HIV infection
 - 3C. Falciparum malaria
 - 3D. Free living amoebae
 - 3E. Cultivation of viruses

(10×5 = 50 marks)



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M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – FEBRUARY 2010

PAPER I: GENERAL MICROBIOLOGY AND IMMUNOLOGY

Monday, February 01, 2010

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 various methods of cultivation of bacteria.
(25 marks)

2. Describe hybridoma technology and its application.
(25 marks)

3. Write short notes on:
 - 3A. Dark ground microscope.
 - 3B. Genetic engineering.
 - 3C. Heterophile agglutination tests.
 - 3D. Immune complex diseases.
 - 3E. Antigen presenting cells.

(10×5 = 50 marks)



MANIPAL UNIVERSITY**M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – AUGUST 2009****PAPER I: GENERAL MICROBIOLOGY AND IMMUNOLOGY**

Monday, August 03, 2009

Time available: 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 appropriate.**

1. Describe the mechanisms of gene transfer in a prokaryotic cell. Add a note on the drug resistance in bacteria. ✓
(25 marks)
2. Define immune response. Discuss the role of lymphocytes in immune response. ✓
(25 marks)
3. Write short notes on:
 - 3A. Anaerobiosis. ✓
 - 3B. Peptidoglycan. ✓
 - 3C. Filtration. ✓
 - 3D. Structure of Immunoglobulin.
 - 3E. Major histocompatibility complex.

(10×5 = 50 marks)



MANIPAL UNIVERSITY**M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – FEBRUARY 2009****PAPER I: GENERAL MICROBIOLOGY AND IMMUNOLOGY**

Monday, February 02, 2009

Time available: 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 appropriate.**

1. Describe the structure of a bacterial cell. (25 marks)
2. Enumerate antigen - antibody reactions. Describe precipitation reactions. (25 marks)
3. Write short notes on:
 - 3A. Koch's postulates. ✓
 - 3B. Polymerase chain reaction.
 - 3C. Autoclave. ✓
 - 3D. Atopy. ✓
 - 3E. Immunomodulators.

(10×5 = 50 marks)

