

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

MD (MICROBIOLOGY) DEGREE EXAMINATION – JULY 2005**SUBJECT: PAPER I: GENERAL MICROBIOLOGY AND IMMUNOLOGY**

Monday, July 04, 2005

Time: 3 Hrs.

Max. Marks: 100

Answer all the questions.

1. Describe in detail the mechanism of genetic transfer in Prokaryotic cell. Add a note on the development of drug resistance in bacteria.

(35 marks)

2. Classify Hypersensitivity. Describe in detail the mechanism of Type – I Hypersensitivity reaction with suitable clinical example.

(35 marks)

3. Write short notes on:
 - 3A. Waste disposal
 - 3B. Complement
 - 3C. Immunoglobulin.

(10×3= 30 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION

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MD (MICROBIOLOGY) DEGREE EXAMINATION – JULY 2005

SUBJECT: PAPER II: SYSTEMATIC BACTERIOLOGY AND MYCOLOGY

Tuesday, July 05, 2005

Time: 3 Hrs.

Max. Marks: 100

✍ Answer all the questions.

1. Write an essay on nonsporing anaerobes.

(35 marks)

2. Describe the aetiology, pathogenesis and laboratory diagnosis of mycetoma.

(35 marks)

3. Write short notes on:

3A. *Listeria monocytogenes*.

3B. Chromoblastomycosis.

3C. Epidemic typhus.

(10×3=30 marks)

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MANIPAL ACADEMY OF HIGHER EDUCATION

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MD (MICROBIOLOGY) DEGREE EXAMINATION – JULY 2005

SUBJECT: PAPER III: PARASITOLOGY AND VIROLOGY

Wednesday, July 06, 2005

Time: 3 Hrs.

Max. Marks: 100

✍ **Answer all the questions.**

1. Enumerate cyclohyllidean cestodes. Write in detail pathogenesis and laboratory diagnosis of hydatid cyst disease.

(35 marks)

2. Describe the morphology, pathogenicity and laboratory diagnosis of herpes simplex virus infections.

(35 marks)

3. Write short notes on:

3A. CPE.

3B. *Hymenolepis nana*.

3C. Bacteriophage.

(10×3 = 30 marks)

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MANIPAL ACADEMY OF HIGHER EDUCATION

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MD (MICROBIOLOGY) DEGREE EXAMINATION – JULY 2005

SUBJECT: PAPER IV: APPLIED MICROBIOLOGY AND RECENT ADVANCES

Thursday, July 07, 2005

Time: 3 Hrs.

Max. Marks: 100

Answer all the questions.

1. Describe automation in microbiology.

(35 marks)

2. Describe hybridoma technique and its application.

(35 marks)

3. Write short notes on:

3A. Malaria vaccine.

3B. Helicobacter pylori.

3C. Weil-Felix reaction.

(10×3=30 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION

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MD (MICROBIOLOGY) DEGREE EXAMINATION – DECEMBER 2005

SUBJECT: PAPER I: GENERAL MICROBIOLOGY AND IMMUNOLOGY

Monday, December 05, 2005

Time: 3 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

1. Discuss the determinants of bacterial virulence.

(35 marks)

2. Classify Hypersensitivity. Discuss type I hypersensitivity.

(35 marks)

3. Write short notes on:

3A. Scanning electron microscope.

3B. Monoclonal antibodies.

3C. Antibiotic sensitivity tests.

(10×3 = 30 marks)

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MANIPAL ACADEMY OF HIGHER EDUCATION

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MD (MICROBIOLOGY) DEGREE EXAMINATION – DECEMBER 2005

SUBJECT: PAPER II: SYSTEMATIC BACTERIOLOGY AND MYCOLOGY

Tuesday, December 06, 2005

Time: 3 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

1. Describe the pathogenesis, laboratory diagnosis and prevention of human anthrax.
(35 marks)

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

3. Write short notes on:
(10×3=30 marks)
 - 3A. TRIC Agents.
 - 3B. Mycetoma.
 - 3C. Bacterial vaccines.

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MANIPAL ACADEMY OF HIGHER EDUCATION

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MD (MICROBIOLOGY) DEGREE EXAMINATION – DECEMBER 2005

SUBJECT: PAPER III: PARASITOLOGY AND VIROLOGY

Wednesday, December 07, 2005

Time: 3 Hrs.

Max. Marks: 100

✍ Answer ALL the questions

1. Discuss oncogenic viruses.

(35 marks)

2. Describe the morphology, life cycle, pathogenicity and laboratory diagnosis of *Entamoeba histolytica*.

(35 marks)

3. Write short notes on:

(10×3=30 marks)

3A. *Dracunculus medinensis*.

3B. Prions.

3C. Dengue virus.

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MD (MICROBIOLOGY) DEGREE EXAMINATION – DECEMBER 2005

SUBJECT: PAPER IV: APPLIED MICROBIOLOGY AND RECENT ADVANCES

Thursday, December 08, 2005

Time: 3 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

1. Describe the role of cytokines in health and disease.

(35 marks)

2. Describe the pathogenesis, laboratory diagnosis and prevention of congenital infections.

(35 marks)

3. Write short notes on:

3A. *Helicobacter pylori*.

3B. Cryptococcal meningitis.

3C. Newer vaccines.

(10×3 = 30 marks)

