

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

MANIPAL UNIVERSITY

MD (MICROBIOLOGY) DEGREE EXAMINATION – APRIL 2007

SUBJECT: PAPER I: GENERAL MICROBIOLOGY AND IMMUNOLOGY

Monday, April 02, 2007

Time: 3 Hrs.

Max. Marks: 100

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

1. Define and classify sterilization. Describe in detail sterilization by heat.
(25 marks)

2. Enumerate Antigen–Antibody reactions. Discuss the principle and uses of precipitation reaction.
(25 marks)

3. Write short notes on:
 - 3A. Plasmids.
 - 3B. Southern Blot.
 - 3C. Anaphylaxis.
 - 3D. Continuous cultures.
 - 3E. Fluorescent microscopy.

(10×5 = 50 marks)



Reg. No.

MANIPAL UNIVERSITY

MD (MICROBIOLOGY) DEGREE EXAMINATION – APRIL 2007

SUBJECT: PAPER II: SYSTEMATIC BACTERIOLOGY AND MYCOLOGY

Tuesday, April 03, 2007

Time: 3 Hrs.

Max. Marks: 100

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

1. Describe the pathogenesis, laboratory diagnosis and prophylaxis of pulmonary tuberculosis.
(25 marks)

2. Discuss subcutaneous mycoses.
(25 marks)

3. Write short notes on:
 - 3A. Mycotoxins.
 - 3B. TRIC agents.
 - 3C. Non venereal treponematoses.
 - 3D. Drug resistance in *Salmonella typhi*.
 - 3E. Non-sporing anaerobes.

(10×5 = 50 marks)



Reg. No.

MANIPAL UNIVERSITY

MD (MICROBIOLOGY) DEGREE EXAMINATION – APRIL 2007

SUBJECT: PAPER III: PARASITOLOGY AND VIROLOGY

Wednesday, April 04, 2007

Time: 3 Hrs.

Max. Marks: 100

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

1. Enumerate the parasites infecting liver. Describe the life cycle, pathogenesis and laboratory diagnosis of *Echinococcus granulosus*.

(25 marks)

2. Classify Enteroviruses. Discuss the pathogenesis, laboratory diagnosis and prophylaxis of Poliomyelitis. Add a note on Pulse Polio Immunisation.

(25 marks)

3. Write short notes on:

3A. Epstein Barr virus.

3B. Laboratory diagnosis of falciparum malaria.

3C. Viral gastroenteritis.

3D. Cryptosporidiosis.

3E. *Enterobius vermicularis*.

(10×5 = 50 marks)



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

MANIPAL UNIVERSITY

MD (MICROBIOLOGY) DEGREE EXAMINATION – APRIL 2007

SUBJECT: PAPER IV: APPLIED MICROBIOLOGY AND RECENT ADVANCES

Thursday, April 05, 2007

Time: 3 Hrs.

Max. Marks: 100

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

1. Describe the pathogenesis, laboratory diagnosis and prevention of emerging infections.
(25 marks)

2. Discuss the various typing methods in bacteriology.
(25 marks)

3. Write short notes on:
 - 3A. Real time PCR.
 - 3B. Ethical issues in HIV vaccine trial.
 - 3C. HLA typing.
 - 3D. Vancomycin resistant Enterococci.
 - 3E. Typhoid Vaccines.

(10×5 = 50 marks)

