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MANIPAL UNIVERSITY

MD (MICROBIOLOGY) DEGREE EXAMINATION – APRIL 2008

SUBJECT: PAPER I: GENERAL MICROBIOLOGY AND IMMUNOLOGY

Tuesday, April 01, 2008

Time: 3 Hrs.

Max. Marks: 100

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- ✍ **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. Discuss in detail the structure and functions of bacterial cell.

(25 marks)

2. Describe the general features of an Antigen-antibody reaction. Discuss the principles, methodology and uses of ELISA. Add a note on sensitivity and specificity of a serological test.

(25 marks)

3. Write short notes on:

3A. CSSD.

3B. Haptens.

3C. Bacteriological examination of water.

3D. T-Lymphocytes.

3E. Plasmids.

(10×5 = 50 marks)

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MANIPAL UNIVERSITY

MD (MICROBIOLOGY) DEGREE EXAMINATION – APRIL 2008

SUBJECT: PAPER II: SYSTEMATIC BACTERIOLOGY AND MYCOLOGY

Wednesday, April 02, 2008

Time: 3 Hrs.

Max. Marks: 100

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- ✍ 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 gas gangrene.
(25 marks)

2. Describe the pathogenesis, laboratory diagnosis and epidemiology of cholera.
(25 marks)

3. Write short notes on:
 - 3A. *Penicillium marneffei*.
 - 3B. Mucormycosis.
 - 3C. Laboratory diagnosis of candidiasis.
 - 3D. Lepromin test.
 - 3E. Sporotrichosis.

(10×5 = 50 marks)

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MANIPAL UNIVERSITY

MD (MICROBIOLOGY) DEGREE EXAMINATION – APRIL 2008

SUBJECT: PAPER III: PARASITOLOGY AND VIROLOGY

Thursday, April 03, 2008

Time: 3 Hrs.

Max. Marks: 100

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- ✍ **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. Classify sporozoa. Describe the life cycle, pathogenesis and laboratory diagnosis of *Plasmodium falciparum*.

(25 marks)

2. Classify Arboviruses. Describe the arboviral infections in India.

(25 marks)

3. Write short notes on:

3A. Epstein Barr virus.

3B. Prophylaxis of Hepatitis B.

3C. *Trichuris trichiura*.

3D. *Trichomonas vaginalis*.

3E. Slow viral diseases.

(10×5 = 50 marks)

MANIPAL UNIVERSITY**MD (MICROBIOLOGY) DEGREE EXAMINATION – APRIL 2008****SUBJECT: PAPER IV: APPLIED MICROBIOLOGY AND RECENT ADVANCES**

Friday, April 04, 2008

Time: 3 Hrs.

Max. Marks: 100

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- ✍ **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 opportunistic infections in HIV infection. Describe the diagnosis and management of parasitic opportunistic infections.

(25 marks)

2. Describe the safety measures in Clinical Microbiology Laboratory.

(25 marks)

3. Write short notes on:

3A. Quality control in antibiotic sensitivity testing

3B. Prions

3C. *Helicobacter pylori*

3D. Infantile diarrhoea

3E. Recent methods in diagnosis of malaria.

(10×5 = 50 marks)

