

MANIPAL UNIVERSITY**M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – JULY 2014****PAPER I: GENERAL MICROBIOLOGY AND IMMUNOLOGY**

Thursday, July 10, 2014

Time: 14:00 – 17:00 Hrs.

Maximum Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay**

1. Describe the principle and applications of molecular methods in diagnostic microbiology
(15 marks)

2. Define and classify immunity. Describe the mechanisms and significance of innate immunity
(15 marks)

3. **Write short notes on**

3A. Bacterial growth curve

3B. Delayed hypersensitivity

3C. Bacterial capsule

3D. Koch's postulates

3E. Chemical methods of sterilization

3F. Conjugation

3G. Endotoxin

3H. Graft versus host reaction

3I. Types and functions of Cytokines

3J. Immunoglobulin G

(7 marks×10 = 70 marks)



MANIPAL UNIVERSITY

M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – JULY 2014

PAPER II: SYSTEMATIC BACTERIOLOGY AND MYCOLOGY

Friday, July 11, 2014

Time: 14:00 – 17:00 Hrs.

Maximum Marks: 100

✍ Answer ALL the questions.

✍ Illustrate your answers with neat labeled diagram wherever necessary

✍ Long Essay

1. Describe the pathogenesis and laboratory diagnosis of typhoid fever.

(15 marks)

2. Enumerate the yeasts of clinical importance. Describe the pathogenesis and laboratory diagnosis of candidiasis.

(15 marks)

3. Write short notes on:

3A. Laboratory diagnosis of Acute Bacterial Meningitis

3B. Treponemal tests for syphilis

3C. Rhinosporidiosis

3D. Diarrheagenic *Escherichia coli*

3E. TRIC agent

3F. Prophylaxis of Tetanus

3G. Laboratory diagnosis of pulmonary tuberculosis

3H. Sexual and asexual spores of fungi

3I. Methicillin Resistant *Staphylococcus aureus*

3J. Mycotoxins

(7 marks×10 = 70 marks)



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M.Sc. MEDICAL (FINAL) MICROBIOLOGY DEGREE EXAMINATION – JULY 2014

PAPER III: PARASITOLOGY AND VIROLOGY

Saturday, July 12, 2014

Time: 14:00 – 17:00 Hrs.

Maximum Marks: 100

✍ **Answer ALL the questions.**

✍ **Illustrate your answers with neat labeled diagram wherever necessary**

✍ **Long Essay**

1. Enumerate tissue nematodes. Describe the life cycle, pathogenesis, clinical features and laboratory diagnosis of *Wuchereria bancrofti* infection.

(15 marks)

2. Describe the pathogenesis and laboratory diagnosis of Rabies. Add a note on prophylaxis of Rabies.

(15 marks)

3. **Write Short notes on:**

3A. *Cryptosporidium parvum*

3B. Laboratory diagnosis of HIV infection

3C. Laboratory diagnosis of kala azar

3D. Rapid methods for diagnosis of viral infections

3E. Immunoserological tests used in the diagnosis of parasitic infections

3F. Serological markers of Hepatitis B Virus

3G. Infections caused by adenoviruses

3H. Cytomegalic inclusion disease

3I. Urinary Schistosomiasis

3J. Prion diseases

(7 marks×10 = 70 marks)

