

MANIPAL UNIVERSITY
SECOND MBBS DEGREE EXAMINATION – MAY 2012
SUBJECT: MICROBIOLOGY – PAPER I (ESSAY)

Monday, May 07, 2012

Time: 10:30 – 13:00 Hrs.

Maximum Marks: 60

Answer ALL questions. Draw neat labeled diagram wherever necessary.

1. Define and classify sterilisation. Discuss the commonly employed disinfectants in hospital.
(10 marks)

2. A 23-year-old man presented with a 4-week history of coughing, breathlessness and malaise. He had lost 4 kg in weight, but had no history of night sweats or haemoptysis. Gram stain of sputum showed normal commensal flora. WBC count and ESR was raised. Chest X Ray showed presence of cavity in left apical lobe of lung. ZN stain of sputum showed presence of Acid Fast Bacilli. Serum was positive for HIV antibodies by ELISA.
 - 2A. What is the clinical condition and what is the causative agent.
 - 2B. Describe the pathogenesis of this condition.
 - 2C. What are the laboratory tests to diagnose this condition?
 - 2D. Describe the prophylactic measures.

(1+3+4+2 = 10 marks)

3. Write short notes on:

- 3A. Agglutination test.
- 3B. Bacterial flagella.
- 3C. Bacteroides fragilis.
- 3D. Interleukins.
- 3E. Diarrhoeagenic Escherichia coli.

(5×5 = 25 marks)

4. Write briefly on:

- 4A. Post Streptococcal sequelae.
- 4B. Transduction.
- 4C. Biological effects of Complement.
- 4D. Bacterial growth curve.
- 4E. Causative agents of food poisoning.

(3×5 = 15 marks)



MANIPAL UNIVERSITY
SECOND MBBS DEGREE EXAMINATION – MAY 2012
SUBJECT: MICROBIOLOGY - PAPER II (ESSAY)

Tuesday, May 08, 2012

Time: 10:30 – 13:00 Hrs.

Maximum Marks: 60

Answer all questions.

1. Describe the pathogenesis and laboratory diagnosis of Human immunodeficiency virus infection.

(5+5 = 10 marks)

2. A 15 year old boy was admitted to the hospital with a history of high fever, chills, rigor and headache of 3 days duration. The stained peripheral smear showed ring shaped trophozoites.

2A. What is the most probable diagnosis?

2B. Describe the life cycle of the parasite causing above condition.

2C. Describe the pathogenesis of the disease.

2D. Discuss the laboratory diagnosis of the disease.

(1+3+3+3 = 10 marks)

3. Write short notes on:

3A. Larva migrans.

3B. *Cysticercus cellulosae*.

3C. Interferons.

3D. Prions.

3E. *Cryptococcus neoformans*.

(5×5 = 25 marks)

4. Write briefly on:

4A. *Enterobius vermicularis*

4B. Complications of falciparum malaria.

4C. Antigenic shift and antigenic drift.

4D. Aspergillosis.

4E. Rhinosporidiosis.

(3×5 = 15 marks)

