

MANIPAL ACADEMY OF HIGHER EDUCATION
SECOND MBBS DEGREE EXAMINATION – NOVEMBER/DECEMBER 2019
SUBJECT: MICROBIOLOGY – PAPER II (ESSAY)

Friday, November 29, 2019

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

✍ Answer ALL the questions.

1. Describe the pathogenesis, clinical features and laboratory diagnosis of amoebic dysentery. Add a note on its prevention.

(2+2+6 = 10 marks)

2. A 25 year old health-care personnel presents with two week history of fever, loss of appetite, yellowish discoloration of conjunctiva, passing dark colored urine and pale stools. On examination he was found to have jaundice and hepatomegaly. On eliciting further history, he recalls a needle prick injury 4 months ago while performing an invasive procedure. He had also in the past refused to be vaccinated against a blood borne pathogen provided by his employer. On performing laboratory investigations, a striking elevation in serum transaminase levels was seen and a serological test for a viral antigen comes positive.

- 2A. What is your diagnosis based on the clinical presentation and investigation results?
 2B. Describe the pathogenesis and clinical features of this illness.
 2C. Discuss the various laboratory tests used for diagnosing this clinical condition.
 2D. What measures may be taken to prevent this illness?

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

3. Write short notes on:

- 3A. Enumerate any four dimorphic fungi causing systemic mycoses
 3B. Laboratory diagnosis of pulmonary aspergillosis
 3C. Rhinosporidiosis
 3D. Laboratory diagnosis of Eumycetoma
 3E. Parvovirus B19 infection
 3F. Name any four carcinomas of viral origin and their causative agents
 3G. Laboratory diagnosis of human rabies
 3H. List any four agents causing viral hemorrhagic fever
 3I. Antigenic variation in Influenza A virus
 3J. Describe the schizogony phase in the life cycle of *Plasmodium vivax*
 3K. Laboratory diagnosis of lymphatic filariasis
 3L. Mention any four parasites which can cause anaemia
 3M. Pathogenesis and laboratory diagnosis of infection with *Clonorchis sinensis*
 3N. Name any four opportunistic intestinal parasites causing infections in HIV seropositive patients
 3O. Laboratory diagnosis of toxoplasmosis

(4 marks × 15 = 60 marks)



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

MANIPAL ACADEMY OF HIGHER EDUCATION
SECOND MBBS DEGREE EXAMINATION – NOVEMBER/DECEMBER 2019
SUBJECT: MICROBIOLOGY – PAPER I (ESSAY)

Thursday, November 28, 2019

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

✍ **Essay questions.**

1. Define and classify sterilization. Write the principle and methods of dry heat sterilization. Add a note on hot air oven.

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

2. A 30-year old male presents with depigmented patch on his chest and back that appeared about a month ago and is nonpruritic. On examination, the skin on the lesion is hypopigmented and has lost sensation. The superficial nerves are thickened. Biopsy of the skin revealed acid fast bacilli arranged in cigar bundles.

Answer the following questions:

- 2A. What is the most likely diagnosis?
2B. What is the pathogenesis of this disease?
2C. What are the clinical types and complications of this disease?
2D. Describe the diagnosis of this disease.

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

3. **Write short notes on:**

- 3A. Bacterial growth curve
3B. Koch's postulates
3C. Delayed hypersensitivity
3D. Immunoglobulin M.
3E. Write the types and uses of ELISA.
3F. Enumerate the biological effects of complement.
3G. Define Autoimmunity, write the types with examples.
3H. Write the pathogenesis and laboratory diagnosis of Rheumatic fever.
3I. Laboratory diagnosis of pyogenic meningitis.
3J. Enumerate the etiological agents of urethritis.
3K. Typhoid vaccines
3L. Prophylaxis of Tetanus
3M. Halophilic vibrios
3N. Methicillin resistant *Staphylococcus aureus*
3O. *Helicobacter pylori*

(4 marks × 15 = 60 marks)

