Madhya Pradesh Medical Science University, Jabalpur

MBBS Second Professional Examination 2022

Subject- Microbiology

Paper- I

Time: 3:00 Hours ***Maximum Marks :100***

Instructions:

a) *All questions are compulsory*
b) *Draw diagrams wherever necessary*
c) *Answers of Questions and Sub-questions must be written strictly according to serial order of question paper.*
d) *Do not write anything on the blank portion of question paper, if written anything such type of act will be considered as an attempt to resort to unfair means*

Q1. Long Answer questions 2 X 10 = 20

a. Enumerate different types of nucleic acid amplification techniques used in diagnostic microbiology. Discuss principle and applications of PCR.

b. A 22 years old girl was admitted to hospital with history of fever with pattern of step ladder, headache and abdominal discomfort for last 55 days. On examination, she was having fever 102°F, tongue was coated and her pulse rate was 96/mt. she also had mild splenomegaly. With this history answer the following questions.
   I. What is your clinical diagnosis?
   II. Which organisms are responsible for this type of infection?
   III. Describe the pathogenesis of this condition.
   IV. Describe sample collection and laboratory diagnosis in detail

Q2. Short Answer Questions 4 X 5= 20

a. Differences between Gram-positive and Gram-negative cell wall
b. Type-Il hypersensitivity.
c. MRSA.
d. Pathogenesis of acute rheumatic fever.
e. Laboratory diagnosis of H. pylori infection.
f. Confidentiality pertaining to patient identity on laboratory results.

Q3. Very Short Answer Questions 1 X 10= 10

a. Germ tube test
b. Enumerate hemoparasites.
c. Why blood should be withdrawn before administration of antibiotics for culture?
d. Transformation.
e. Why Gas gangrene is usually associated with cases of severe crush injury?
f. Tyndallisation.
g. Complications of Falciparum malaria.
h. Why Biological false positive reaction occurs in VDRL test?
i. Enumerate virulence factors of Escherichia coli.
j. Draw a well labelled diagram of life cycle of Entamoeba coli.