

Madhya Pradesh Medical Science University, Jabalpur

MBBS Second Professional Examination June-2023

Paper Code- 23AM0000100381

Subject- Microbiology (New Scheme)

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 the serial order of question paper.
- d) MCQ has to be answered in theory answer book
- e) Please write MCQ answer nearly and in serial order with black or blue pen in brackets for example:- 1. (a) 2. (b)
- f) MCQ has to be answered only once, any kind for repetition or cutting or erasing or whitener will be consider as malpractice. Such answers will not be counted in the marks and action will be taken according to UFM rules of University

Q. 1 MCQs

10 X 1 = 10

1 What is the basis of Paul Bunnell test for EBV?

- A. Heterophile
- b. Cell mediated
- c. immune complex
- d. None

Antibody

hypersensitivity

mediated

2 Which of the following microfilaria comes to peripheral blood in daytime?

- a. *Brugia malayi*
- b. *Wuchereria bancrofti*
- c. *Loa loa*
- d. *Brugia timori*

3 Gram positive α -hemolytic cocci with catalase negative and optochin resistant causing endocarditis

- a. *Str pneumoniae*
- b. *Str agalactiae*
- c. *Staph epidermidis*
- d. *Str sanguis*

4 All of the following intestinal nematodes are oviparous, EXCEPT:

- a. Roundworm
- b. *Strongyloides*
- c. Hookworm
- d. *Enterobius*

5 Diagnosis of typhoid fever on 5th day is best done by:

- A. Blood culture
- b. Urine culture
- c. Stool culture

d. Widal test

6 In emergency patient relative donated blood. It was tested in lab before transfusion. Which of the following disease will be tested EXCEPT

- a. Hepatitis B
- b. Hepatitis A
- c. HIV 1 & 2
- d. Hepatitis C

7 Example of antibody-dependent cellular dysfunction or ADCD:

- A. Graves' disease
- b. Hemolytic anemia
- c. Pemphigus vulgaris
- d. Transfusion reaction

8 Disc diffusion method is also known as:

- a. String test
- b. Darkfield
- c. VDRL
- d. Kirby Bauer

9 Jumping gene is

- a. Plasmid
- b. Epitope
- c. Transposon
- d. Cosmid

10 Bacterial capsule is best demonstrated by:

- a. Albert staining
- b. Methylene blue staining
- c. Negative staining
- d. Silver Impregnation

Q.2 Long Answer Questions

2x20=40

a. A 30-year-old man brought to hospital with history of severe watery diarrhea for one day. He gave history of recent visit to Prayagraj for kumbhmela. On examination, he was afebrile with s/o severe dehydration, no abdominal tenderness. Hanging drop preparation of stool shows darting motile bacteria. With this history, answer the following questions. (2+6+6+6=20)

- 1. What is your clinical diagnosis and probable causative agent?
- 2. Describe the epidemiology of this condition.
- 3. Discuss the pathogenesis of this condition.
- 4. Describe the laboratory diagnosis of this condition.

b. Define Sterilization, Disinfection, Asepsis and Decontamination. What are the methods of sterilization? Write a detail note on physical methods of sterilization.

Q.3 Brief Answer Questions

6x5=30

- a. Differentiate gram-positive and gram-negative bacterial cell wall with the help of suitable diagram.
- b. Write a note on Autoimmunity.
- c. Lab diagnosis of acute rheumatic fever.
- d. Opportunistic infections in HIV patients.

- e. Viral markers of Hepatitis B infection.
- f. Explain briefly about "Respect to patient's clinical sample".

Q.4 Short Answer Questions**10x2=20**

- a. Enlist bile stained eggs.
- b. Enumerates any Four types of vaccines with example.
- c. Complement fixation test.
- d. PPE and its uses.
- e. Anaerobic culture methods.
- f. Enumerates any Four blood stream infections.
- g. Pseudomembranous enterocolitis
- h. Urea breath test.
- i. CAMP Test.
- j. Koch's postulates.
