

Madhya Pradesh Medical Science University, Jabalpur
MBBS First Professional (Supplementary) Examination July-2023
Subject- Biochemistry (New Scheme)

Paper-II

Paper Code-23BM0000100032

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 neatly 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 of repetition or cutting or erasing or whitener will be considered as malpractice.
- Such answers will not be counted in the marks and action will be taken according to UFM rules of University
- g) Subjective Answer should be answered in up to 30 words per marks. For example, if a question having 2 marks answer should be answered in up to 60 words.

Q.1 Total MCQs: 10

10x1=10

1. Inhibitor of bacterial topoisomerase enzyme:

- a. Etoposide
- b. Mercaptopurine
- c. Adriamycin
- d. Novobiocin

2. Enzyme responsible for respiratory burst is

- a. NADPH-oxidase
- b. Nitric oxide synthase
- c. Glutathione peroxidase

- d. Catalase
3. Immunoglobulin that can cross placenta is
- a. IgA
 - b. IgG
 - c. IgM
 - d. IgD
4. DNA finger printing was found by
- a. Watson
 - b. Galton
 - c. Jeffrey
 - d. Walds
5. Good quality of protein can be assessed by
- a. Biological value
 - b. Amino acid score
 - c. Net protein
 - d. All of the above
6. All are antioxidants Enzymes except
- a. Superoxide dismutase
 - b. Glutathione peroxidase
 - c. Glutathione reductase
 - d. Glucose 6 Phosphate Dehydrogenase
7. Which part of tissue of body has largest portion of total body water?
- a. ICF
 - b. ECF
 - c. Plasma
 - d. Interstitial fluid

8. All of these genes are oncogenic except:
- a. Mutagens
 - b. Oncogenes
 - c. Carcinogens
 - d. Antioncogenes
9. Which of the following is known as a chain-breaking antioxidant?
- a. Ascorbic acid
 - b. Selenium
 - c. Zinc
 - d. Bilirubin
10. Morphine poisoning causes
- a. Metabolic acidosis
 - b. Respiratory acidosis
 - c. Metabolic alkalosis
 - d. Respiratory alkalosis

Q.2 Long Answer Questions

1. A 30-year-old man presented with fever, shaking chills, headache, muscle pain and tiredness. He also complained of nausea, vomiting, diarrhoea and yellow discolouration of the skin. He was diagnosed with malaria.

- a) What is jaundice?
- b) What type of jaundice is seen in patients with malaria and why?
- c) What is Van den Bergh test?
- d) What will be result of van den Bergh test in this case and why?
- e) What will be the urinary findings in this case?

b. Describe various Blood Buffer systems of our body. Write a note on disorders associated with derangements of Acid Base Balance.

Q.3 Brief Answer Questions**6x5=30**

- Write about molecular basis of cancer with their suitable examples.
- Define the free radicals and write diseases associated with them.
- Classify types and give clinical features of Protein Energy Malnutrition.
- Role of Physician towards society and community.
- Explain derivatives of hemoglobin.
- Recombinant DNA Technology (Genetic Engineering) and its applications.

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

- Naturally occurring unusual purine and pyrimidine bases.
- Lesch-Nyhan Syndrome.
- Primary dehydration.
- Quality control in laboratory.
- Give normal level of urea and creatinine.
- Types OF RNA and their functions.
- Abnormal Hemoglobin.
- Automation in Clinical Laboratory.
- Xeroderma pigmentosa.
- Immunoglobulins.
