

The West Bengal University of Health Sciences
M.D. (Biochemistry) May - June, 2022 Examination

Paper IV

Full Marks:100

Time : 3hours

Attempt all questions

1. What is the molecular basis of Cancer ? What are the biochemical changes in cancer cells. 5+5
2. Discuss the types of errors in laboratory testing. 10
3. Explain how you will formulate a diet to compensate the nutritional deficiencies in a child suffering from protein energy malnutrition. Describe the laboratory tests that can be performed for monitoring a case of protein energy malnutrition. 6+4
4. Write short notes on : 5+5
 - a) LJ Plot
 - b) ROC Plot
5. Discuss molecular defect and diagnosis of sickle cell anemia. Why is it prevalent in regions endemic to falciparum malaria. 4+3+3
6. Compare the advantages and disadvantages of electrolyte measurement in body fluids using the flame photometry and ion selective electrode methods. Describe the importance of measurement of ionized calcium and corrected calcium in blood. 6+4
7. Compare the advantages and disadvantages between the amniocentesis and chorionic villus biopsy methods for determining in utero fetal defects. Explain why folate deficiency may lead to neural tube defects in newborns. 7+3
8. Write short notes on: 5+5
 - a) alpha 1 antitrypsin deficiency
 - b) Mitochondrial myopathies
9. Discuss pancreatic function tests. 10
10. Write short notes on: 5+5
 - a) Hepatic encephalopathy
 - b) Alcoholic liver diseases and their complications