

BMLT

B.Sc. Second Semester End Examination-2023

(Regular & Supplementary Paper)

PAPER-IX

[Biochemistry & Biophysics]

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

1. **Answer any FIVE questions of the following:** **5x2= 10**
 - a. What is wernicke – kossakoff syndrome?
 - b. Write the dietary source & daily requirement of vit A?
 - c. Why capillary fragility test is conducted?
 - d. What do you mean by amphoteric nature of protein?
 - e. Write two important functions of protein.
 - f. What do you mean by omega-3 and omega-6 fatty acids?
 - g. Difference between reducing and non-reducing sugars.
 - h. Differentiate apo-enzyme and co-enzyme.

2. **Answer any FOUR questions of the following:** **4x5 = 20**
 - a. Discuss about the different classes of enzymes with suitable example.

(2)

- b. What are disaccharides? Write the structure of Maltose. 2+3
- c. Name two amino acids with nonpolar aromatic sidechains. Discuss about the bonds involved in stabilizing higher structure of protein. 1+4
- d. Mention the diseases caused due to deficiency of Thiamine. What do you mean by hypervitaminosis A. 3+2
- e. Describe the pathway of TCA cycle with names of enzymes and co-enzymes involved. 5
- f. What is transamination? What is Maple syrup urine disease? 3+2
- 3. Answer any ONE question of the following: 1x10 = 10**
- a. Explain in detail about the pathway of glycolysis. State the regulation of glycolysis. 8+2
- b. Explain in detail about the secondary structure of protein with suitable diagram. 8+2
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