BMLT

B.Sc. Second Semester End Examination-2024

[Regular & Supplementary Paper]

PAPER: IX

[Biochemistry and Biophysics]

Full Marks: 40 ***Time: 02Hrs***

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) Write the dietary source and daily requirement of Vit C?

b) Write two biological functions of carbohydrate.

c) Differentiate between homoglycan and heteroglycan.

d) What are holoennymes?

e) Define Km value.

f) Write the stochiometric equation of glycolysis.

g) Define saponification number.

h) Define glucogenic amino acid.

2. Answer any FOUR questions of the following: 4x5 = 20

a) Describe about the secondary structure of protein. Give any two examples of negatively charged amino acids. 4+1

b) What is the active site of enzyme? Explain the effect of pH and temperature on the enzyme actively. 1+4

c) Draw and describe the schematic diagram of TCA cycle.

d) Define ganglioside. Explain the structure of starch. 1+4

e) What are transdeamination and oxidative deamination? Explain with suitable reaction. 5

f) Describe the pathway of glycogenesis. Write down the significance of glycogenesis. 4+1

3. Answer any ONE question of the following: 1x10 = 10

a) Explain the detail about the pathway of urea cycle. Why Hyperammouemia I is caused? 8+2

b) i. Difference between B-DNA and Z-DNA.

ii) Differentiate between salting in and salting out.

iii. What is beta-oxidation? 4+4+2
