



Total No. of Questions: 4

Total No. of Pages: 2

First Year (F.Y. B.Sc.)
COURSE CODE: CHE12201
COURSE NAME: FUNDAMENTALS OF BIOCHEMISTRY-II
(Semester II)

Program: B.Sc.
Program Specific: General B.Sc.
Course Type: CC Minor Chemistry

Credits: 2
Time: 2 Hours
Max. Marks: 30
SET: A

Instructions to the candidate:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Draw a well labelled diagram wherever necessary.

Q1) Answer the following

[5 X 1= 5]

1. What is general structure of an amino acid?
2. Draw the structure of Valine.
3. What are essential amino acids?
4. What are Lipids?
5. Write one example of protein obtained from animal origin.

Q2) Answer the following (Attempt any 5/7)

[5 X 2 =10]

1. Explain the concept of Ampholytes.
2. Draw structure of Glycine and Aspartate.
3. Explain the reaction of amino acid with 1-fluoro 2, 4-dinitrobenzene.
4. Draw the quaternary structure of Protein.
5. Write short note on Peptide bond.
6. What are Regulatory Proteins?
7. Explain the concept of Zwitter ion.

P.T.O.

Q3) Write short notes on following (Attempt any 2/4)

[2 X 5 = 10]

1. What are amino acids? Explain the reaction of amino acid with ninhydrin and Dansyl chloride.
2. Define peptide linkage. Draw the structures of (a) Alanine (b) Phenylalanine (c) Serine and (d) Cysteine.
3. Explain secondary structure of Protein.
4. Discuss the classification of proteins based on composition.

Q4) Answer the following (Attempt any 1/2)

[5 X 1 = 5]

1. What is isoelectric pH ? Discuss the titration curve of glycine.
2. Write important features of peptide bond.
