

2316

25

Class – B.Sc. VI (Sem.) BIF Voc.

Subject – Structural Biology & Molecular Modelling

Time Allowed : 3 Hours

Maximum Marks : 75

Section A

Attempt all questions. Each carries 1.5 marks.

1. Explain the following terms: $10 \times 1.5 = 15$
- (a) Native protein
 - (b) MS - MS
 - (c) Motif
 - (d) Bragg's Law
 - (e) SCOP
 - (f) QSAR
 - (g) Quaternary Structure of Protein
 - (h) Descriptors
 - (i) ADMET
 - (j) Edman degradation

SECTION - B

Attempt four questions.

(4 × 15 = 60)

- Q 2. Explain principle and application of electron microscopy.

OR

- Q 3. What is mass spectrometry? Give its principle and applications.
- Q 4. Explain the method used for prediction of three dimensional structure of proteins.

OR

- Q 5. What is domain? What is the difference between Chou Fasman and GOR methods for protein secondary structure prediction?
- Q 6. What is computer aided Drug Designing? Explain the difference between structure based and ligand based drug design with example.

OR

- Q 7. What do you understand by QSAR? Explain its significance.
- Q 8. How are motifs and Domains predicted using
- (a) Multiple Sequence Alignment
 - (b) Regular Expression
 - (c) Statistical Modelling

OR

- Q 9. What is empirical force field? Explain any one force field.
