Exam.Code:0044
Sub. Code: 18015

2056

B.Sc. (Hons) Bio-Informatics

Sixth Semester

BIN-6002: Introduction to Proteins and Proteomics

Time allowed: 3 Hours

Max. Marks: 60

NOTE: *Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.*

x-x-x

1. Give answers in very short:
   a) Effect of temperature on protein structure.
   b) Significance of Edman degradation.
   c) What is the solubilization of proteins?
   d) What do you mean by Proteomics?
   e) Define phosphorylation.
   f) What is the principle of GC/MS?
   g) Peptide mapping.
   h) Give name of two post translational modifications (PTM) of proteins.
   i) RNA polymerase.
   j) Role of Ribosomes?
   k) What is GRID?
   l) Mention one application of phase display. (12x1)

UNIT - I

2. a) Explain the importance of primary structure of protein in protein structure of functions.
   b) Write a short note on protein solubility. (2x6)

3. a) What is proteome? What are significances for proteome in diseases?
   b) Explain the principle and applications of protein array in protein analysis. (2x6)

4. a) Write a short note on LC/MS.
   b) What is protein confirmation? How will you analyze the protein confirmation? (2x6)

UNIT - II

5. a) What are post translational modifications (PTMs)? Discuss their cellular functions.
   b) Explain the role of di-sulphide bonding in protein functions. (2x6)

P.T.O.

6. a) Discuss the importance of Ribosomes.

   b) Describe the role of two hybrid system in protein study. (2x6)

7. a) Write a short note on GRID.

   b) What is the protein-protein interaction? Write about STRING. (2x6)

x-x-x