Exam.Code:0044
Sub. Code: 1016

2061

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*

I. Attempt the following :-

a) What is salting out?

b) Why Edman degradation is used in a sequenator?

c) Define proteome.

d) What is the principle of MS/MS?

e) What is phosphorylation ?

f) Which type of RNA is a part of ribosomes? (6x2)

## UNIT - I

II. a) Discuss the effect ofpH on protein solubility.

b) Discuss the procedure for protein isolation. (2x6)

III. a) Discuss the technique of LC/MS in protein structure determination.

b) Discuss protein arrays as high throughput method for protein analysis. (2x6)

IV. Discuss the steps in protein sequencing employing Edman's reagent. (12)

## UNIT - II

V. a) Discuss glycosylation as a post translational modification.

b) Discuss the structural components of a RNA polymerase II. (2x6)

VI. a) Discuss phage display as a method for mapping protein interactions.

b) Discuss how and why lipids are attached to a nascent protein. (2x6)

VII. a) Give a overview of DIP database.

b) Discuss the role of GRID as a protein interaction database. (2x6)

*x-x-x*