

1059

M.Sc. (Bio-Informatics) Fourth Semester
MBIN-8017: Genomics and Proteomics – II

Time allowed: 3 Hours

Max. Marks: 60

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

x-x-x

I. Answer the following:-

- a) Name any two diseases due to SNPs.
- b) What are VNTRs? Give suitable example.
- c) Give full forms of DIP and STRING.
- d) What is gene fusion?
- e) Differentiate between Pfam A and Pfam B.
- f) What is hybridoma technology?
- g) Briefly explain FRET.
- h) Differentiate between polymorphism and mutation.

(8x1½)

UNIT – I

- II. a) What are SNPs? Discuss any one method for their detection.
- b) Compare and contrast genetic, physical and cytological maps.

(6,6)

III. Write notes on the following:-

- a) RFLP
- b) SSCP detection of SNPs

(6,6)

UNIT – II

- IV. a) How are protein-protein interactions detected using yeast 2- hybrid method?
 - b) Discuss the technique of page display and give its applications.
- V. a) How can Mass spectroscopy be used to characterize protein complexes?
 - b) Write a note on genome wide protein interaction studies.

(6,6)

(6,6)

UNIT – III

VI. Write notes on the following:-

- a) MUMMER
- b) Hydropathy plot
- c) SCOP

(3x4)

P.T.O.

(2)

VII. a) How is fold recognition used to predict protein structure?

b) Discuss BLASTZ and how does it differ from BLAST.

(6,6)

x-x-x