Sr. No. 2451

Exam Code: 206603

Subject Code: 3650

M.Sc. Bio-Informatics - 3rd Sem.

(2118)

Paper: BI-631

Genomics & Proteomics

Time allowed: 3 hrs.   Max. Marks: 75

Section A

Section A is compulsory.

Explain the following in not more than four lines   1.5X10 = 15

1) Transposable elements   2) RFLP
3) Genome map   4) Pharmacogenomics
5) Nucleosome   6) Proteomics
7) COG   8) Cytoscape
9) STS   10) GRID

Section B

Answer one question from each unit.   5X4 = 60

Unit 1

1) What are pseudogenes? Discuss gene structure of human gene.
2) What are genetic and physical genome maps? Discuss application of genome map.

Unit 2

3) What is comparative genomics? Discuss how bioinformatics tools help in comparative genomics study.
4) What do you understand by genome alignment tool? Explain MUMmer.

Unit 3

5) What is comparative proteomics? Discuss principle and application of differential 2D gels.
6) Discuss how bioinformatics tools are used in proteomics studies.

Unit 4

7) What are protein-protein interaction network? Explain different sources of protein-protein interaction data.
8) What is interactome? Discuss InterPreTS and its significance.

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