

Exam. Code : 206602
Subject Code : 4709

M.Sc. Bioinformatics 2nd Semester (Batch 2021-23)
GENOMICS AND PROTEOMICS
Paper-BI-523

Time Allowed—3 Hours] [Maximum Marks—75

Note :- Attempt FIVE questions in all, selecting at least ONE question from each Section. The fifth question may be attempted from any Section. All questions carry equal marks.

SECTION—A

1. What are the characteristic features of a prokaryotic genome and how is it different from the eukaryotic genome ?
15
2. Write short notes on any two of the following :
 - (a) Genetic mapping of genome
 - (b) Transposable elements
 - (c) Pseudogenes. 7.5×2

SECTION—B

3. What is RAPD ? How does it work and what are its limitations ? 15
4. What is genome annotation ? Discuss one of the methods used to annotate a genome. 15

SECTION—C

5. Elucidate the difference between metagenomics and single cell genomics. 15
6. Discuss the various applications of population genomics. 15

SECTION—D

7. What are the various web tools available to study protein-protein interactions ? Discuss any one. 15
8. Write short notes on :
 - (a) Yeast two hybrid system
 - (b) BiFC. 7.5×2