

Exam. Code : 206603
Subject Code : 4768

M.Sc. Bio-Informatics 3rd Semester (Batch 2020-22)
ADVANCES IN GENOMICS, TRANSCRIPTOMICS
& METAGENOMICS

Paper-BI-631

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 is zinc finger nuclease technology ? Discuss its usage and limitations.
2. What is CRSPR/Cas9 technology ? Discuss its application.

SECTION—B

3. Explain SNPs. Discuss concept and challenges in assembly of short reads.
4. What is gene ontology ? Discuss tools used for identification of somatic variation from genome resequencing.

SECTION—C

5. What is microarray ? Discuss tools used for gene expression analysis using RNAseq data.
6. What is transcriptomics ? Discuss tools used for microarray data analysis.

SECTION—D

7. What is 16SrRNA data analysis ? Discuss its application in metagenome analysis.
8. What is CHIPseq ? Discuss its principle and application.