MASTER OF SCIENCE (BIOINFORMATICS) (CBCS-2019 COURSE)
M. Sc. (Bioinformatics) Sem-III : WINTER :- 2021
SUBJECT: CURRENT BIOINFORMATICS

Day : Monday
Date 31-01-2022

W-21178-2021

Time : 02:00 PM-03:30 PM
Max. Marks: 30

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Answers to both the sections should be written in **SAME** answer book.

SECTION-I

Q.1 Attempt any **SEVEN** of the following: **(07)**

a) Define: GraphPad Prism.
b) Enlist 2 commands of Linux.
c) Phred quality scores Q = _____.
d) What are duplicate sequences?
e) Enlist the tools used for Genome mapping.
f) Enlist any 2 NGS sequencers.
g) What are flagged sequences?
h) Enlist 2 applications of MEGA software.

Q.2 Attempt any **TWO** of the following: **(08)**

a) What is FastQC analysis? Explain the tools used for it.
b) Differentiate between Bowtie and Tophat.
c) Explain ChIP seq analysis in detail. Give its applications.

SECTION-II

Q.3 Attempt any **SEVEN** of the following: **(07)**

a) Define: Microarray.
b) Enlist any two genome browsers.
c) Define: Circos plot.
d) Give any 2 applications of IGV.
e) Define: GeneGo db.
f) Define: Splice junctions.
g) Define: PANTHER db.
h) Which is standard mouse genome?

Q.4 Attempt any **TWO** of the following: **(08)**

a) Differentiate between DNA array and Protein array.
b) Write a short note on Cytoscape.
c) What are Juggling Genome coordinate? Give its applications.

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