Roll No.							Total No. of Pages : 02

Total No. of Questions: 09

M.Sc.(BT) (2011 to 2017) (Sem.-3) PROTEOMICS AND GENOMICS

Subject Code: MSBT-201 M.Code: 15018

Time: 3 Hrs. Max. Marks: 60

INSTRUCTION TO CANDIDATES:

- SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

Q1. Write short notes on following:

- (a) Biological databases
- (b) Importance of Bioinformatics
- (c) Gap penalty
- (d) Scoring matrices
- (e) Un-rooted phylogenetic tree
- (f) RAPD
- (g) DGGE
- (h) SDS-PAGE
- (i) De novo sequencing
- (j) Genome complexity

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SECTION-B

- Q2. Explain nature of data entries and organization of nucleotide databases.
- Q3. Differentiate between PAM and BLOSUM matrices.
- Q4. Discuss in brief the hierarchical and shotgun sequencing strategies.
- Q5. Describe the theories and importance of MALDI-TOF and gel filtration chromatography.
- Q6. Define the term Bioinformatics. What are its goal and scopes in biological research?

SECTION-C

- O7. Write illustrated notes on:
 - (a) Molecular markers
 - (b) SNP disease database
- Q8. Explain mass spectrometry based methods for protein identification.
- Q9. Compare methods and applications of pair wise and multiple sequence alignment.

NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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