



D-3235

B. Sc. (Sem. VI) (Microbiology) Examination
April/May - 2016

MB-20 : Genomics, Proteomics & Bioinformatics

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवही पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
B. SC. (SEM. VI) (MICROBIOLOGY)	<input type="text"/>
Name of the Subject :	<input type="text"/>
MB-20 : GENOMICS, PROTEOMICS & BIOINFORMATICS	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="5"/>	Section No. (1, 2,.....) : <input type="text" value="Nil"/>
Student's Signature	

- (2) Figures to the right indicate full marks of the question.
- (3) Draw neat and labelled diagrams whenever necessary.

1 Give specific answers :

12

- (a) Define : Contigs and Orthologs
- (b) What is genomics ? Give the goals of genomics.
- (c) What forms the biological databases ? Who is the founder of biological databases ?
- (d) Give the full form of TrEMBL and OMIM.
- (e) Give two examples of secondary and specialized protein sequence databases.
- (f) What is ORF ? State its use.

- 2 Explain/comment on any two of the following : 12
- (a) Whole Genome Shotgun Sequencing.
 - (b) There are some differences between Swiss-Prot and EMBL databases.
 - (c) Bioinformatics in an interdisciplinary subject.
- 3 Discuss any two of the following : 16
- (a) Discuss the role of bioinformatics in the study and application of phylogenetic analysis.
 - (b) Explain how homology, similarity and identity represents the different aspects of the sequences.
 - (c) Define alignment and give a detailed account of sequence alignment.
- 4 Write short notes on any two of the following : 10
- (a) Comparative genomics
 - (b) Proteomics in drug discovery and development
 - (c) Gene prediction.
-