AD-3235

B. Sc. (Microbiology) (Sem. VI) Examination
March/April – 2015
MB-20 : Genomics, Proteomics & Bioinformatics

Time :   Hours]   [Total Marks : **50**

Instructions :

(1)

(2)   Figures to the right indicate full marks.

(3)   Draw labeled diagram where necessary

1   Give specific answers: **12**

    (1)   What is annotation? How it's useful in genetic study?

    (2)   Define: Sequence alignment. Name the methods use in it.

    (3)   Define: a) databank b) database

    (4)   What is Pi helix? State it significance in bioinformatics.

    (5)   What is the aim of bioinformatics? Name any two-research bioinformatics institute of India.

    (6)   What is Distance matrix? Name any two.

2   Comment on/explain any two of the following: **12**

    (1)   Protein and proteomics are different.

    (2)   Structure of gene can be predictable.

    (3)   Statistician helps to study gene.

AD-3235]   1   [Contd...

3 Attempt any two of the following: **16**

    (1) Describe in detail microbial genomics and its application.

    (2) Give detail account on principle of bioinformatics and applications.

    (3) Elaborate a note on proteomics.

4 Write short notes on any two of the following: **10**

    (1) Pairwise sequence alignment and its significance.

    (2) Protein: composition and databases

    (3) Whole Genome Shotgun sequencing.

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