TDC Even Semester Exam., 2019

BIOTECHNOLOGY

(Honours)

(6th Semester)

Course No. : BTCH–603

(Bioinformatics)

Full Marks : 35
Pass Marks : 12

Time : 2 hours

The figures in the margin indicate full marks for the questions

1. Define bioinformatics. What are the different branches of bioinformatics? Explain with suitable examples. 2+5=7

OR

2. What are primary and secondary databases? Explain annotated sequence data base and organism specific database. 2+2½+2½=7

3. Write a note on biological data retrieval system. Give an account of multiple sequence alignment. 3+4=7

OR

4. How are protein structures determined? What are the approaches for protein structure prediction? 3½+3½=7

5. Write a note on data analysis from 2D-PAGE gels. Name some bioinformatics tools employed to understand evolution of protein structure. 4+3=7

OR

6. What are the tools available to perform gene expression analysis? What are the features associated with any two such tools? 3+4=7

7. Write short notes on any *four* of the following : 3½×4=14

(a) Application of bioinformatics in pharmaceutical industry

(b) SAGE

(c) Microarray data analysis

(d) Structural bioinformatics and drug discovery

(e) Phylogenetics

(f) BLAST

(g) Chemoinformatics resources

(h) Evolution of protein function

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