CBCS SCHEME

USN | | | | | | | | | | |

15BT54

Fifth Semester B.E. Degree Examination, June/July 2019
Bioinformatics

Time: 3 hrs. Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1 a. Explain the importance in informatics tools in bioinformatics exercises, with suitable example. **(08 Marks)**

b. What are secondary databases? Explain with examples. **(08 Marks)**

OR

2 a. Write relevant note on i) Gen Bank flat file ii) PDB flat file. **(08 Marks)**

b. Discuss the utilities of BLAST program in database searches. **(08 Marks)**

Module-2

3 a. Discuss any ONE distance based and character based approaches for constructing phylogenetic tree. **(08 Marks)**

b. Explain the method of Tree evaluation **(04 Marks)**

c. Write a note on PHYLIP. **(04 Marks)**

OR

4 a. Write any two methods of predicting functional sites in meleotide sequence. **(08 Marks)**

b. Explain the tools used towards predicting secondary and tertrary protein structure. **(08 Marks)**

Module-3

5 a. Explain the significances of bioinformatics approaches towards detection of polymorphisms. **(08 Marks)**

b. What is comparative genomics? Explain tools for comparative genomics. **(08 Marks)**

OR

6 a. Explain the importance of databases and tools in micro-array data analysis. **(10 Marks)**

b. Write detailed note on machine learning tools. **(06 Marks)**

Module-4

7 a. What is molecular modeling? Explain different steps involved in elico modeling. **(08 Marks)**

b. Give a detailed note on : i) Molecular superposition ii) Energy minimization. **(08 Marks)**

OR

8 a. Explain the need of visualization tools in bioinformatics exerciser with relevant examples. **(08 Marks)**

b. Explain significances of graphical representation of molecular structure. **(08 Marks)**

Module-5

9 a. Write different parameters required for primor designing. **(06 Marks)**

b. Explain the importance of QSAR and pharmacopher pattern study in docking work. **(10 Marks)**

OR

10 a. Explain how the molecular properties and energy calcualting are carried out in docking study. **(08 Marks)**

b. Discuss the scope and applications of in slico drug design. **(08 Marks)**

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