CBCS Scheme

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

16/17BBT22

Second Semester M.Tech. Degree Examination, June/July 2018
Advanced Bio-Informatics

Time: 3 hrs. Max. Marks: 80

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

Module-1

1 a. Discuss various structural organization levels of proteins. **(12 Marks)**
b. Discuss Molecular structure of M - RNA. **(04 Marks)**

OR

2 a. Briefly explain Translation process during protein synthesis. **(10 Marks)**
b. Explain any one DNA sequencing technique. **(06 Marks)**

Module-2

3 a. Briefly describe the role of NCBI in Bio – Informatic exercises. **(08 Marks)**
b. Write a note on Molecular Structural Database, with an example. **(08 Marks)**

OR

4 a. What is Sequence Alignment? Discuss various types of Sequence Alignment methods. **(10 Marks)**
b. Discuss the Application of Secondary Biological Databases. **(06 Marks)**

Module-3

5 a. What is Molecular Docking? Add a note on its types. **(08 Marks)**
b. Write a note on Lead Optimization and its role during Insilico drug designing. **(08 Marks)**

OR

6 a. Explain how ADNET plays an important role during drug discovery process. **(08 Marks)**
b. Discuss the scope and applications of Insilico drug design. **(08 Marks)**

Module-4

7 a. Give an account on Homology Modeling. **(10 Marks)**
b. Give a short note on Structural drug design. **(06 Marks)**

OR

8 a. Write short notes on : i) QSAR ii) Evolutionary Analysis. **(10 Marks)**
b. Briefly explain Predictive toxicology studies. **(06 Marks)**

Module-5

9 a. Give a brief account on Receptor – Ligand Interaction. **(10 Marks)**
b. Write a short note on Pharmacopore. **(06 Marks)**

OR

10 Write short notes on : **(16 Marks)**
a. Scaffold hopping.
b. Protein – protein Docking.
c. Protein Modeling.
d. Application of Phylogenetic Analysis.

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