

(3 Hours)

Marks : 80

NB : (1) Question No.1 is Compulsory.

(2) Attempt any three questions out of the remaining five questions.

1. Write short notes (5 marks each) (20)
 - a. SNP
 - b. PDB
 - c. Clustal W
 - d. Neural network

 2. a. Classify types of databases based on types of data (10)
b. Describe applications of bioinformatics (10)

 3. a. Explain dot matrix with an example (10)
b. Explain Needleman Wunsch algorithm with an example (10)

 4. Write short notes (5 marks each) (20)
 - a) Types of biological data
 - b) EST
 - c) RASMOL
 - d) Protein-ligand interactions

 5. a. Explain the steps in homology modelling (10)
b. CATH (05)
c. Threading (05)

 6. a. Explain Ramachandran Plot (10)
b. Explain the role of chaperons in protein folding (10)
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