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10BT56

Fifth Semester B.E. Degree Examination, Dec.2017/Jan.2018
Bioinformatics

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

PART – A

- 1 a. What are Primary databases? Explain with examples. (10 Marks)
b. Write short notes on : i) Gen bank ii) KEGG. (10 Marks)
- 2 a. Give brief account on Biological databases. (12 Marks)
b. Write short notes on :
i) PIR ii) PDB iii) EXPASY iv) Uniprot – KB. (08 Marks)
- 3 a. Discuss the Evolutionary basis for sequence alignment. (12 Marks)
b. Trace comparison between PAM and BLOSUM. (08 Marks)
- 4 a. What is Multiple Sequence Alignment? Discuss about phylogenetic softwares used in Multiple Sequence Alignment. (12 Marks)
b. Write short notes on : i) GENSCAN ii) Gap Penalty. (08 Marks)

PART – B

- 5 Write short notes on :
a. DNA strider. (05 Marks)
b. OMIGA. (05 Marks)
c. Restriction Mapping. (05 Marks)
d. Primer 3. (05 Marks)
- 6 a. Explain role of Bioinformatics tools in micro array data analysis. (10 Marks)
b. Write short notes on :
i) EST database ii) Artificial intelligence. (10 Marks)
- 7 a. Discuss scope and applications of Insilico modeling in modern biology. (12 Marks)
b. Write short notes on :
i) Rasmol ii) Canonical DNA forms. (08 Marks)
- 8 Write short notes on :
a. Molecular modeling. (05 Marks)
b. QSAR. (05 Marks)
c. Receptor mapping. (05 Marks)
d. HEX. (05 Marks)
