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B.E (Full time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2012
COMPUTER SCIENCE BRANCH

SEVENTH SEMESTER

44

EC9073 – BIOINFORMATICS

REGULATIONS 2008

Time : 3 hr

Max Mark : 100

Answer ALL Questions

Part – A (10x2 = 20Marks)

1. What is the need of bio informatics technologies?
2. What are the structural domain resources?
3. List the three major DNA sequence databases.
4. Give the analogy between BNN & ANN and the functions of their components
5. List out the major steps used in PHMM generation.
6. What is molecular mechanics?
7. What are the important problems in DNA and protein sequence analysis?
8. Give the unique function of promoters.
9. What are the methods used to extract the significant modes of variation from the large array of time series expression data?
10. How can be the accurate block segmentation achieved?

Part – B (5x 16 = 80 Marks)

11. (i) How can the secondary resources and associated algorithms be grouped?
Discuss in detail. (12)
- (ii) Explain in detail about the need of bioinformatics technologies (6)
12. a (i) How can the data be transformed to knowledge? With neat sketch, explain data warehousing architecture in detail (8)
- (ii) Explain in detail about DNA data analysis (8)

(OR)

- b (i) Explain in detail about protein data analysis (8)
(ii) With necessary diagrams detail about fuzzy system. (8)

13.a. Discuss about comparative model for biological data analysis (16)

(OR)

b. Detail molecular modeling for biological data analysis (16)

14. a.(i) Discuss about fractal analysis in detail (12)
(ii) Discuss the strategies for motif detection in a protein sequence (4)

(OR)

- b.(i) Explain two dimensional portrait representation of DNA sequences (12)
(ii) Discuss about gene regulation in detail (4)

15. a Discuss in detail about data analysis for pattern discovery. (16)

(OR)

b Explain Image analysis used in data extraction. (16)

----- *All the Best* -----