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**B.E (Full time) DEGREE END SEMESTER EXAMINATIONS, APR / MAY 2012
COMPUTER SCIENCE BRANCH**

SEVENTH SEMESTER

EC9073 – BIOINFORMATICS

REGULATIONS 2008

Time : 3 hr

Max Mark : 100

Answer ALL Questions

Part – A (10x2 = 20Marks)

1. What are the different types of data bases used in the field of biology?
2. Give short note on structural bioinformatics approaches in drug design
3. What is the need of data quality in bioinformatics data?
4. Give the analogy between BNN & ANN and the functions of their components
5. What are the different classifications of seunces used in Bioinformatics?
6. What is molecular modeling?
7. What is pattern maching?
8. Justify, "single gene multi-species approach is less computationally intensive"
9. What is spot extraction?
10. Give short note on Cost Matrix.

Part – B (5x 16 = 80 Marks)

11. (i) Elaborate bioinformatics technologies in detail (8)
- (ii) Explain in detail primary resources in detail (8)

12. a (i) Differentiate data mining and data ware housing? Explain in detail about data ware housing architecture in detail with neat diagram. (8)
- (ii) Explain in detail about the different software tools used for bioinformatics research (8)

(OR)

- b (i) Explain in detail about Protein data analysis (8)
- (ii) Differentiate supervised and unsupervised learning algorithms. Explain in detail about both with necessary diagrams (8)

13.a. Elaborate comparative modeling and protein modeling for biological data analysis (16)

(OR)

b. Detail probabilistic and genomic modeling for biological data analysis (16)

14. a.(i) Discuss Gene regulation in detail (8)

(ii) Discuss motif detection in a protein sequence (8)

(OR)

b.(i) Explain different DNA walk models in detail (8)

(ii) Discuss different strategies for motif detection with a sample pattern (8)

15. a Elaborate Image analysis for data extraction with necessary diagrams. (16)

(OR)

b Discuss in detail about Data Analysis for pattern discovery. (16)

All the Best
