

**B.Tech. - VIEP - COMPUTER SCIENCE AND
ENGINEERING (BTCSVI)**

Term-End Examination

00873

December, 2016

BICSE-008 : BIO-INFORMATICS

Time : 3 hours

Maximum Marks : 70

Note : Answer any seven questions. All questions carry equal marks.

1. Explain the concept of multiple sequence alignment. 10
2. Define Bio-informatics. What are the different parts in biological databases ? Explain. 10
3. Who created BLAST ? Explain the type of scoring matrix used by BLAST. 10
4. (a) What is gene expression and microarrays ? 5
(b) How can microarray data analysis be done ? Explain in detail. 5

5. (a) Explain natural language processing and its limitations. 5
- (b) What do you understand by microarray clustering and classification ? Describe in brief. 5
6. (a) What is classical NMR Spectroscopy ? 5
- (b) Explain integrated genomic maps in detail. 5
7. Discuss the different Hidden Markov models. 10
8. Write the concepts of 1D Motifs. What are the different representations in 1D Motifs ? 10
9. Define terminologies and ontologies. Differentiate between terminologies and ontologies. 10
10. What is meant by database similarity searches ? Explain the different ways to do database similarity searches. 10
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