

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

**00253 Term-End Examination**

**June, 2018**

**BICSE-008 : BIO-INFORMATICS**

*Time : 3 hours*

*Maximum Marks : 70*

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

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1. (a) What are the current approaches for bio-informatics and what are the problems in it ? 5
- (b) What is Gene prediction ? 5
2. (a) Describe algorithm issues in database search. 5
- (b) Write any one Gene finding algorithm. 5
3. (a) Discuss about relationships of phylogenetic analysis to sequence alignment. 5
- (b) Discuss genetic networks in detail. 5
4. Who created BLAST ? Explain the type of scoring matrix used by BLAST. 10

5. Write the concept of ID motifs. What are the different relationships in ID motifs ? 10
  6. Explain comparative genomics algorithm. 10
  7. (a) Describe micro array clustering and its classification. 5  
(b) Describe vector machine applications in bio-informatics in detail. 5
  8. Explain computational methods for identification of polypeptides from mass spectrometry. 10
  9. What is the use of structure computations ? Explain 3D structure computations. 10
  10. Explain Critical Assessment of Structure Prediction (CASP) and structures of oligomeric proteins. 10
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