

B.E. (Computer Engineering) Eighth Semester (C.B.S.)
Elective-III : Bio-Informatics & Cyber Security

P. Pages : 2

Time : Three Hours



NRT/KS/19/3714

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Solve Question 11 OR Questions No. 12.
 8. Due credit will be given to neatness and adequate dimensions.
 9. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) Discuss data characteristics methods in Bio-Informatics. **6**
b) Explain knowledge data discovery process. **7**

OR

2. a) Discuss briefly about biological retrieval system. **6**
b) Explain various bio-Informatic applications. **7**
3. a) Explain various tools to analyze primary sequence databases in bioinformatics. **7**
b) Explain various protein information resources in detail. **6**

OR

4. a) Explain quantitative randomness and its analysis in detail. **7**
b) Explain biological databases with reference to primary databases and secondary databases. **6**
5. a) Write note on:
i) Dot matrix analysis. **6**
ii) Submission metrics.
b) State various patterns matching methods and explain in brief. **7**

OR

6. a) Write a note on dynamic programming. **6**
b) Explain text mining and its various tools. **7**
7. a) Explain any two bio-informatics tools in detail. **7**
b) Explain various issues related to collaboration and communication standards. **7**

OR

8. a) Explain FASTA algorithm in detail. 7
b) What are the different methods for predicting protein structure. 7
9. a) Explain RSA algorithm with example. 7
b) Explain DES algorithm in detail. 7

OR

10. a) Discuss various security threats in detail. 7
b) Explain Diffie-Helman algorithm in detail. 7
11. a) Describe the architecture of firewall with suitable diagram. 7
b) Write note on Access control and intrusion detection. 6

OR

12. a) Explain security issues for virtual private networks. 7
b) Write note on: 6
i) OS security
ii) Server management.
