

QP CODE: 24001183



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B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, MARCH 2024 Sixth Semester

B.Sc Biotechnology Model III

CHOICE BASED CORE COURSE - BT6CBT01 - BIOINFORMATICS

2017 Admission Onwards D8FA1F9A

Time: 3 Hours Max. Marks: 80

Part A

Answer any **ten** questions.

Each question carries **2** marks.

- 1. Tell the name of the Mother and Father of bioinformatics.
- 2. Tell the method used for transcriptomics analysis.
- 3. What is the use of proteomics?
- 4. Correlate DDBJ and Genbank.
- 5. Role play of Genpept.
- 6. Mention the role of dot plots in sequence alignment.
- 7. Conclude how does BLAST works.
- 8. Uses of computational biology.
- 9. Mention the use of rasmol.
- 10. Mention the role of protein modelling.
- 11. Mention about BT cotton.
- 12. Write the role of bioinformatics in basic research.

 $(10 \times 2 = 20)$

Part B

Answer any **six** questions.

Each question carries **5** marks.

- 13. Prioritize the skills necessary for a good bioinformatician.
- 14. Use and methods of Genomics in bioinformatics.



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- 15. What is protein submission tool? Explain the major process involved in the submission of protein sequences.
- 16. Expand EMBL? summarize its important features of sequence submission in bioinformatics..
- 17. Conclude the different ways of sequence alignment.
- 18. Define the significance of multiple sequence alignment in biological data analysis.
- 19. Compare different structure prediction methods.
- 20. Conclude drug development.
- 21. Identify the role of Chemiinformatics in drug field.

 $(6 \times 5 = 30)$

Part C

Answer any two questions.

Each question carries 15 marks.

- 22. What are databases? Write the different types of databases with help of suitable examples.
- 23. Write the differences between local and global alignment in detail.
- 24. Mention the use of phylogenetic analysis and give an account on tools used in phylogenetics?
- 25. Summarize an essay on Geoinformatics.

 $(2 \times 15 = 30)$

