



T - 6610

Reg. No. :

Name :

Fourth Semester M.Sc. Degree Examination, July 2024

Botany

BO 241 : BIOINFORMATICS

(2013 - 2018 Admission)

Time : 3 Hours

Max. Marks : 75

I. Answer the following questions.

1. DDBJ
2. Bioinformatics
3. CADD
4. Ab initio prediction of protein structure
5. Cladogram
6. Molecular docking
7. Clustal W
8. GENSCAN
9. Metabolomics
10. Ras Mol

(10 × 1 = 10 Marks)

P.T.O.



II. Answer the following questions in not more than 50 words.

11. (a) Explain PROSITE.

OR

(b) What is Auto Dock?

12. (a) What is Genome annotation?

OR

(b) What is Protein Sorting?

13. (a) What is multiple sequence Analysis?

OR

(b) Describe Species tree.

14. (a) Explain Kimuras theory of Molecular evolution.

OR

(b) Explain Homology Modeling.

15. (a) What is Transcriptomics.

OR

(b) What is the use of LINUX in Bioinformatics?

(5 × 2 = 10 Marks)

III. Answer the following questions in not more than 150 words.

16. (a) Give an account on the scope of Bioinformatics.

OR

(b) Explain PIR.

17. (a) Give an account on EMBL.

OR

(b) Explain briefly about Protein Data Bank.

18. (a) Explain Chou Fasman method of Secondary structure Prediction.

OR

(b) Describe single Nucleotide Polymorphism.



19. (a) Explain Mass Spectrometry in Protein identification.

OR

(b) Explain Scoring matrices in bioinformatics.

20. (a) Explain Pharmacogenomics.

OR

(b) Describe Phylogram.

21. (a) Write an essay on Proteomics.

OR

(b) Briefly mention the significance of Molecular phylogeny.

22. (a) Explain BLAST in detail.

OR

(b) Write notes on types of Genomics.

(7 × 5 = 35 Marks)

IV. Answer the following questions in not more than 250 words.

23. (a) Write an essay on the importance of Biological databases and explain Nucleotide sequence database and PIR.

OR

(b) Explain the role of Bioinformatics in drug designing.

24. (a) Write an essay on the application of Bioinformatics.

OR

(b) Write an essay on the Molecular Docking and its applications.

(2 × 10 = 20 Marks)

