Reg. No. : ....

Name : ....

V Semester B.C.A. Degree (CBCSS – OBE – Regular/Supplementary/ Improvement) Examination, November 2024
(2019 to 2022 Admissions)
Core Course
5B16BCA-E04 : BIOINFORMATICS

Time : 3 Hours

Max. Marks : 40

PART – A : Short Answer

Answer **all** questions.

(6×1=6)

1. Name the most popular retrieval systems for biological databases.

2. What do you mean by SQL ?

3. Expand the term BLAST.

4. What do you mean by molecular biology ?

5. What do you mean by PDB ?

6. What do you mean by backbone atoms ?

PART – B : Short Essay

Answer **any 6** questions.

(6×2=12)

7. What do you mean by peptide formation ?

8. What is SRS ?

9. What are various types of biological databases ?

10. What do you mean by relational databases ?

11. What are the unique requirements for implementing algorithms for sequence database searching ?

12. What are the benefits of expasy bioinformatic tool ?

13. Short note on local sequence alignment.

14. Briefly explain secondary structures.

PART – C : **Essay**

Answer **any 4** questions. (4×3=12)

15. Briefly explain about secondary databases.

16. Explain scope of bioinformatics.

17. Differentiate local and global alignment.

18. Write short note on FASTA.

19. Briefly explain any one protein structure visualisation viewer.

20. What are the pitfalls of biological databases ?

PART – D : **Long Essay**

Answer **any 2** questions. (2×5=10)

21. Describe various bioinformatic tools.

22. Write short notes on prokaryotes and eukaryotes.

23. Compare any two scoring matrices.

24. Write notes on :

a) Prokaryotes cell   2.5

b) Structure of protein.   2.5

_____