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# V Semester B.Sc. Degree (CBCSS-Reg./Sup./Imp.) Examination, November - 2019

(2014 Admission Onwards)

## **CORE COURSE IN BIOCHEMISTRY**

SB08 BCH: COMPUTATIONAL TECHNIQUES IN BIOCHEMISTRY

Time: 3 Hours

Max. Marks: 40

### **SECTION - A**

Write about each of the following in 2 or 3 sentences. Each question carries 1 mark. (4×1=4)

- 1. What is the expansion of http?
- 2. What is LAN?
- 3. What is a genome?
- 4. What is drug design?

### **SECTION - B**

Write short notes on any **Seven** of the following. Each question carries 2 marks. (7×2=14)

- 5. What is a programming language?
- 6. What is an IP Address?
- 7. Bioinformatics is multidisciplinary. What are the disciplines associated with it?
- 8. Explain the term "pattern recognition".

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- 9. Give a brief account on DDBJ.
- 10. What is a secondary database?
- 11. What is pair wise alignment?
- 12. What are alignment algorithms?
- 13. What is drug bank?
- 14. What is docking?

### **SECTION - C**

Write notes on any Four of the following. Each question carries 3 marks. (4×3=12)

- 15. Differentiate between software and hardware with suitable examples.
- **16.** Give a brief account on data retrieval tools.
- 17. Discuss on GenBank.
- 18. Discuss on FASTA.
- 19. Comment on Cambridge structural database.
- 20. Give a brief outline on World Wide Web.

#### **SECTION - D**

Write an essay an any **Two** of the following. Each question carries 5 marks. (2×5=10)

- 21. What are input output devices? Give a brief note on the various types of operating systems.
- 22. Discuss on the methods of pattern recognition and prediction.
- 23. Discuss on sequence analysis with emphasis on multiple sequence alignment.
- 24. What is homology modeling and discuss on the benefits of it.