



Reg. No. : .....

Name : .....

K21U 1840

III Semester B.Sc. Degree CBCSS (OBE) Reg./Sup./Imp. Examination,  
November 2021  
(2019 – 2020 Admission)  
3A12MCB : General Awareness Course in Microbiology  
BIOINFORMATICS AND BIOINSTRUMENTATION

Time : 3 Hours

Max. Marks : 40

PART – A

Answer **all** the questions. **Each** question carries **1** mark.

(6×1=6)

1. GenBank
2. PDB
3. FASTA
4. Rf Value
5. Beer Lambert's Law
6. Name 2 protein secondary structure prediction tool.

PART – B

Answer **any 6** questions. **Each** question carries **2** marks.

(6×2=12)

7. CLUSTAL W
8. SRS
9. Pairwise sequence alignment
10. BLOSUM
11. Nested PCR

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12. NCBI
13. IIUMINA
14. Primer.

PART – C

Answer **any 4** questions. **Each** question carries **3** marks.

(4×3=12)

15. What is Phylogenic analysis ? Describe different tools for the analysis.
16. Write about primary nucleotide sequence databases.
17. Brief account on principle, types and application of gel electrophoresis.
18. What is NGS platforms ? Narrate different generation of NGS.
19. Explain the importance of CADD in drug design.
20. Write a comparison between BLAST and FASTA tool.

PART – D

Answer **any 2** questions. **Each** question carries **5** marks.

(2×5=10)

21. Narrate different kinds of protein sequence databases.
  22. What is sequence alignment ? Explain different types of sequence alignment tools.
  23. Explain different steps involve in a novel drug design.
  24. Write the principle, types and applications of PCR.
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