

Reg. No. :
Name :



III Semester B.Sc. Degree CBCSS (OBE) – Regular Examination, November 2020 (2019 Admission Only)

GENERAL AWARENESS COURSE IN MICROBIOLOGY 3A12MCB: Bioinformatics and Bioinstrumentation

Time: 3 Hours

Max. Marks: 40

PART - A

Answer all the questions. Each question carries 1 mark.

 $(6 \times 1 = 6)$

- 1. DDBJ.
- 2. CATH.
- 3. RCF.
- 4. Absorption spectra.
- 5. CDNA.
- 6. Name 2 database search tools.

PART - B

Answer any 6 questions. Each question carries 2 marks.

 $(6 \times 2 = 12)$

- 7. CADD.
- 8. High throughput sequencing.
- 9. Pairwise sequence alignment.
- 10. UV-VISIBLE spectrophotometer.
- 11. Taq Polymerase.
- 12. PDB.
- 13. Paper chromatography.
- 14. PAM.



PART - C

Answer any 4 questions. Each question carries 3 marks.

 $(4 \times 3 = 12)$

- 15. What is the difference between pairwise and multiple alignment of sequences?
- 16. Write about specialised secondary protein sequence databases.
- 17. Narrate principle and application of PCR.
- 18. What is molecular docking? Narrate its importance in drug design.
- 19. Explain different kinds of centrifuges.
- 20. What is metabolomics? Narrate its brief application.

PART - D

Answer any 2 questions. Each question carries 5 marks.

 $(2 \times 5 = 10)$

- 21. What is Phylogenetic analysis? Narrate different tools for it.
- 22. Explain different steps involve in a novel drug design.
- 23. Write the principle, types and applications of Gel electrophoresis.
- 24. What is proteomics? Narrate work flow and applications of it.