

0108609



K19U 2481

Reg. No. :

Name :

III Semester B.Sc. Degree (CBCSS- Reg./Sup./Imp.)

Examination, November-2019

(2014 Admn. Onwards)

GENERAL COURSE IN MICROBIOLOGY

3A12 MCB : BIOPHYSICS AND BIOINFORMATICS

Time : 3 Hours

SECTION-A

Max. Marks : 40

(Answer **ALL** the four questions)

(4×1=4)

1. The conserved regions in protein sequences are known as-----.
2. Biological systems are open as there is----- between organisms and their environment.
3. TrEmbl is expanded as-----.
4. BLAST was designed by-----.

SECTION-B

(Answer very briefly on any **Seven** questions out of Ten)

(7×2=14)

5. HITS.
6. Entropy.
7. Dialysis.
8. Chargaff's rule.
9. k- tups.
10. Entrez.
11. Philip.

P.T.O.



12. Molecular docking.
13. Histone proteins.
14. Omega loops.

SECTION-C

(Answer very briefly on any **Four** questions out of six)

(4×3=12)

15. Drug designing.
16. Laws of thermodynamics.
17. Primary and secondary biological databases.
18. Free energy change in endergonic and exergonic reactions.
19. Global and local sequence alignments .
20. Compare alpha - helices and beta - pleats in proteins.

SECTION-D

(Answer any **Two** questions out of Four)

(2×5=10)

21. Describe the procedure involved in whole genome sequencing.
 22. Explain the methodology in BLAST.
 23. Make a comparison of different forms of DNA.
 24. Explain the steps involved in phylogenetic tree construction.
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