

C 3457

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Name

Reg. No

FOURTH SEMESTER M.Sc. DEGREE EXAMINATION, JUNE 2016

(CUCSS)

Microbiology

MB 4C 11— BIostatistics and Bioinformatics

(2010 Admissions)

Maximum : 36 Weightage

Time : Three Hours

Part A

Answer **all** questions.

Each question carries 1 weightage.

1. Sampling methods.
2. Standard deviation.
3. Confidence limits.
4. Median.
5. BLAST N.
6. Orthologs.
7. Polytomy.
8. PDB.
9. Homology modelling.
10. ORF analysis.
11. SEQUIN.
12. TIGR.
13. CD value.
14. ANOVA.

(14 x 1 = 14 weightage)

Part B

Write short notes on any **seven**.

Each question carries 2 weightage.

15. Student's *t* test.
16. Coefficient of correlation.

Turn over

17. Secondary data bases.
18. Design of experiments.
19. Nucleic and substitution models.
20. Multiple sequence alignment
21. Database searching.
22. KIMURA's theory of neutrality.
23. Mr. Bayes.
24. Molecular docking.

(7 x 2 = 14 weightage)

Part C

Answer any two questions.

Each question carries 4 weightage.

25. What are the different steps in testing a hypothesis ?
26. What are the different algorithms for phylogenetic reconstruction ?
27. Briefly explain the applications of bioinformatics in biological studies.

(2 x 4 = 8 weightage)