

Roll No. :

Total No. of Questions : 16]

[Total No. of Printed Pages : 3

SEMM-415

M.Sc. (IVth Semester) Examination, 2022

MICROBIOLOGY

Paper - MBCC-401

(Bio-informatics and Computer Applications)

Time : 1½ Hours]

[Maximum Marks : 40

Note :- The Question paper contains three Sections.

Section-A

(Marks : 1 × 10 = 10)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries
1 mark.

Section-B

(Marks : 3 × 5 = 15)

Note :- Answer any *five* questions by selecting at least *one* question from each Unit.
Each question carries **3** marks. Answer should not exceed **200** words.

Section-C

(Marks : 5 × 3 = 15)

Note :- Answer any *three* questions by selecting *one* from each Unit. Each question
carries **5** marks. Answer should not exceed **500** words.

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Section–A

1. Attempt all questions. Answer should not exceed **50** words in each question.
 - (i) Define Bio-informatics.
 - (ii) What is Gene Bank ?
 - (iii) Where is world's largest Gene Bank ?
 - (iv) What is Sequence Format ?
 - (v) Expand EMBL.
 - (vi) What is NCBI ?
 - (vii) What is the purpose of Metabolic Pathway Engineering ?
 - (viii) Expand WIMP.
 - (ix) What is Computer Graphics ?
 - (x) Write example of Database of Viruses.

Section–B

Note :- Answer *five* questions by selecting at least *one* question from each Unit. Each question carries **3** marks. Answer should not exceed **200** words.

Unit–I

2. Explain Biodiversity Database.
3. What is the use of Structure Query Database ?
4. What is Database Concept ?

Unit-II

5. Which is data retrieving tool in Bio-informatics ?
6. What is Genome Sequencing ?
7. Write name of nucleic acid sequence database.

Unit-III

8. What is Command Line ?
9. Define Computer.
10. What is the use of Computer as Audio-visual Aid ?

Section-C

Note :- Answer *three* questions by selecting *one* from each Unit. Each question carries **5** marks. Answer should not exceed **500** words.

Unit-I

11. Write a detailed note on Microbiological and Virology Databases.
12. Describe the Cell Gene Banks related sites.

Unit-II

13. Write a detailed note on Protein Sequence Database.
14. Describe the method of submission of sequence to database.

Unit-III

15. Describe the role of Spreadsheet and Statistical Analysis in data processing.
16. How LIMS is useful for Genomic Labs ? Explain in detail.