2203000206026006
EXAMINATION FEBRUARY-MARCH 2024
BACHELOR OF SCIENCE (SIXTH SEMESTER)
MICROBIOLOGY-XXII (MB-606-GENOMICS PROTEOMICS AND BIOINFORMATICS) – LEVEL 2

[**Time: As Per Schedule]** **[Max. Marks: 50]**

Instructions:
1. Fill up strictly the following details on your answer book
   a. Name of the Examination : **BACHELOR OF SCIENCE (SIXTH SEMESTER)**
   b. Name of the Subject : **MICROBIOLOGY-XXII (MB-606-GENOMICS PROTEOMICS AND BIOINFORMATICS)-LEVEL 2**
   c. Subject Code No : **2203000206026006**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

Student's Signature

Q.1 Give answers in brief **8**

a. Give full form of: i) NGS ii) ORF

b. State the difference between dNTPs & ddNTPs.

c. Define genome annotation

d. Name the three data retrieval systems.

e. What is metabolomics

f. Give full form of i) NCBI ii) INSD

g. State various forms of BLAST.

h. Give two differences between global Vs local alignment.

Q.2 Explain/Comment on ANY TWO of the following: - 14

a. Explain how DNA is sequenced by chain termination method.

b. Functional genomics links genes to phenotypes.

c. Biological databases can be classified into various categories.

Q.3 Discuss ANY TWO of the following: - 14

a. Write a detailed note on present bioinformatics scenario in India

b. Discuss in detail Multiple sequence alignment and the calculation of score for similarity search.

c. Discuss how two-dimensional gel electrophoresis allow visualization of many more cellular proteins.

Q.4 Write short note on ANY TWO of the following: - 14

a. Multiple Displacement Amplification Method.

b. Systems Biology

c. Compare FASTA & BLAST

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