

**2103000206021106**  
**EXAMINATION FEBRUARY-MARCH 2024**  
**BACHELOR OF SCIENCE (SIXTH SEMESTER)**  
**BIO SCIENCE (MICROBIOLOGY) PAPER - XI**  
**(BS-606-FUNDAMENTALS OF 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: **BIO SCIENCE (MICROBIOLOGY) PAPER - XI (BS-606-FUNDAMENTALS OF BIOINFORMATICS)**
  - c. Subject Code No: **2103000206021106**
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:

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Student's Signature

**Q.1 Multiple choice questions: (MCQs)**

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1. The study of molecular organization of genomes, their information content and the gene products is called \_\_\_\_\_
  - a. Genetics
  - b. Genotypic study
  - c. Genomics
  - d. None
2. Which of the following is known as transcripts?
  - a. mRNA
  - b. Protein
  - c. RNA
  - d. DNA
3. Which of the following are stages of Whole genome shot-gun sequencing?
  - a. Library construction
  - b. Random sequencing
  - c. Fragment alignment
  - d. All
4. \_\_\_\_\_ is known as Chain - termination DNA sequencing method.
  - a. PCR technique
  - b. Sanger's technique
  - c. Maxam & Gilbert method
  - d. None



**Q.4 Answer any two of the following.**

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1. Describe in brief Biological database.
2. Write note on Phylogenetic tree.
3. Explain in brief Bioinformatics & its applications

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