

2203000205026001
EXAMINATION FEBRUARY -MARCH 2024
BACHELOR OF SCIENCE (FIFTH SEMESTER)
MICROBIOLOGY-XI
(MB-501-PRINCIPLES OF BACTERIAL GENETICS)
LEVEL2

[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 (FIFTH SEMESTER)**
 - b. Name of the Subject : **MICROBIOLOGY-XI (MB-501-PRINCIPLES OF BACTERIAL GENETICS) LEVEL 2**
 - c. Subject Code No : **2203000205026001**
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 Give Specific answers:

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1. What is the function helicase enzyme?
2. What do you mean by proof reading activity?
3. What is monocistronic RNA?
4. What is polyribosome?
5. What is the function of β - galactoside permease enzyme?
6. What are small RNAs?
7. What is competent cell.
8. Define transposition.

Q.2 Explain any two of the following:

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1. Define transduction. Explain generalized transduction in detail.
2. Elaborate on bacterial gene structure.
3. Explain elongation of polypeptide chain during protein synthesis with suitable diagram.

Q.3 Explain any two of the following:

14

1. Explain methods used for detection and selection of mutant.
2. Define conjugation. Explain F' Conjugation.
3. Elaborate on transposable element.

Q.4 Write a short note on: (any two).

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1. DNA replication: Elongation
2. RNA polymerase
3. Regulation of translation process.
