

**Roll No.**

**Total No. of Pages : 02**

**Total No. of Questions : 09**

**B.Sc. (Hons.) Microbiology (Sem.-3)**

# MICROBIAL GENETICS

**Subject Code : BSMB-303-19**

**M.Code : 90369**

**Date of Examination : 14-12-22**

**Time : 3 Hrs.**

**Max. Marks : 60**

### INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

## SECTION-A

1. **Write briefly :**
  - a. Define mutation and its types?
  - b. Explain transduction.
  - c. What is replication?
  - d. What is Ames test?
  - e. Explain two uses of mutations.
  - f. What is translation?
  - g. What is the difference between deletion and duplications?
  - h. What is transformation?
  - i. Explain portioning of the plasmid.
  - j. What is silent mutation?

## **SECTION-B**

2. Explain types of plasmids in brief.
3. Difference between translation and transduction.
4. What is conjugation, explain its discovery and mechanism?
5. Difference between LFT and HFT lysates?
6. Explain reversion and suppression in brief.

## **SECTION-C**

7. Define plasmids. Explain the phenomena of plasmid incompatibility with suitable examples.
8. Define Intra and inter-genetic suppressions.
9. Describe gene mapping by recombination and co-transduction of markers.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**