Total No. of Questions: 16 ] [ Total No. of Printed Pages: 3

## **SEM-1036**

# M.Sc. (Ist Semester) Examination, 2022 MICROBIOLOGY

Paper - FS-MIC-CC-104

### (Microbial Genetics and Genetic Engineering)

Time: 3 Hours [ Maximum Marks: 40

This question paper contains three Sections.

Section-A (Marks :  $1 \times 10 = 10$ )

**Note**:— The candidate is required to answer all the *ten* questions carries **1** mark each. The answer should not exceed **50** words.

Section–B (Marks :  $3 \times 5 = 15$ )

**Note**:— The candidate is required to answer *five* questions by selecting at least *one* question from each Unit. Each question carries 3 marks. Answer should not exceed **200** words.

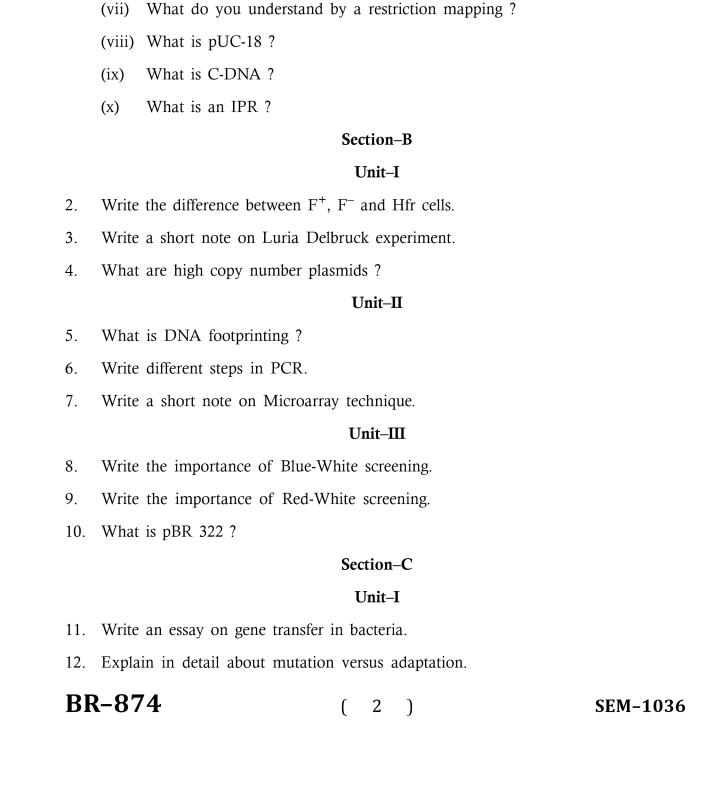
Section–C (Marks:  $5 \times 3 = 15$ )

**Note**:— The candidate is required to answer *three* questions by selecting *one* question from each Unit. Each question carries **5** marks. The answer should not exceed **500** words.

#### Section-A

- 1. (i) Write the number of Chromosome in Bacteria.
  - (ii) Define Genome.

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What is CoL plasmid?

Define Transformation.

Why Agarose gels are used?

What is AFLP?

(iii)

(iv)

(v)

(vi)

#### Unit-II

- 13. Write an essay on nucleic acid hybridization techniques.
- 14. Write an essay on restriction endonucleases.

#### Unit-III

- 15. Write an essay on BAC and YAC.
- 16. Write detailed notes on the following:
  - (a) Screening of recombinants
  - (b) Site directed mutagenesis