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

## BIOTSEM-136

# M.Sc. (Ist Semester) Examination Dec., 2022 BIOTECHNOLOGY

Paper -BT-103

(Concept of Microbiology)

Time: 3 Hours [ Maximum Marks: 40

The question paper contains three Sections.

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

**Note**: Answer all *ten* questions. Answer should not exceed **50** words. Each question carries **1** mark.

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

**Note**: Answer *five* questions by selecting at least *one* question from each Unit. Answer should not exceed **200** words. Each question carries **3** marks.

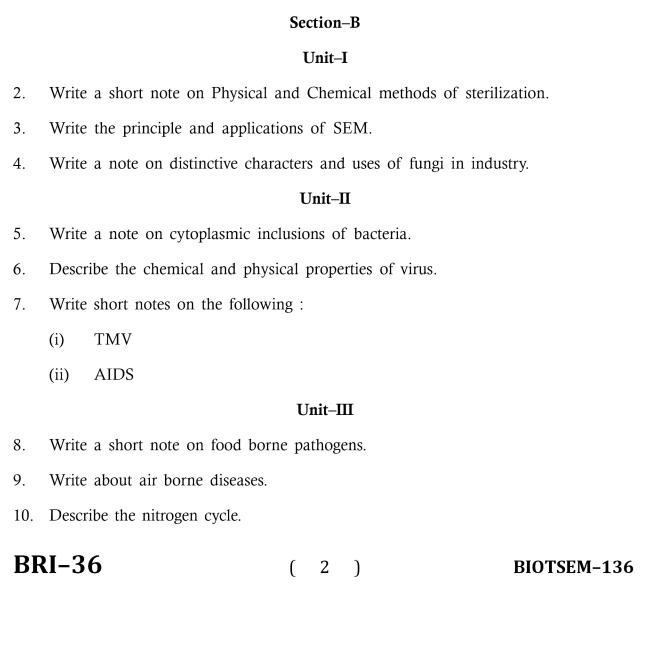
Section–C (Marks:  $5 \times 3 = 15$ )

**Note**: Answer any *three* questions by selecting at least *one* question from each Unit. The answer should not exceed **500** words. Each question carries **5** marks.

### Section-A

- 1. (i) What is Quorum sensing?
  - (ii) Write any two gram positive bacteria.

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(iii)

(iv)

(v)

(vi)

(vii)

(ix)

(x)

Write any edible fungi.

What is Nucleocapsid?

(viii) Write the full form of SAARS.

What is Food Poisoning?

What are Impingers?

Write short note on phase constrast Microscopy.

Write the causal organism of citrus canker.

What do you mean by Nitrogen Fixation?

#### Section-C

#### Unit-I

- 11. Write a detailed note on different fixation and staining techniques for EM.
- 12. Write notes on the following:
  - (i) Types of media
  - (ii) Pure culture isolation techniques

#### Unit-II

- 13. Write differences between gram positive and gram negative bacteria.
- 14. Describe general characteristics of virus and also explain multiplication of virus.

#### Unit-III

- 15. Write notes on following:
  - (i) Food preservation
  - (ii) Food spoilage
- 16. Write a detailed note on soil microflora.

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