Registration Number: Date & session:

# ST. JOSEPH’S UNIVERSITY, BENGALURU -27 M.Sc. BOTANY – IV SEMESTER

**SEMESTER EXAMINATION: APRIL 2024**

**(Examination conducted in May/June 2024)**

# BODE 0423 - MICROBIOLOGY

Time: 2 Hours Max Marks: 50

This paper contains ONE printed page and THREE parts Draw diagrams and give examples wherever necessary

1. **Define ANY FIVE of the following in 2 or 3 sentences each 2 × 5 = 10**

1. Nitrogenase

2. Crude fermentation media

3. Resazurin test

4. HTST

5. Activated sludge

6. Botulinum toxin

7. Hypersensitivity

1. **Write critical notes on ANY FIVE of the following 6 × 5 = 30**

8. Microbial spoilage of food and any two methods of food preservation.

9. Which pathogen causes the “rice water stools” disease symptom? Discuss its etiology and control.

10. HPV is a major cause of cervical cancer in India. Discuss its pathogenicity and control.

11. Production of Monoclonal antibodies and its significance in Immunotherapy.

12. Solid waste is a major problem in metropolitan cities. How do microbes play a role in its composting?

13. Biodegradation of cellulose and its role in agriculture.

14. Commercial production of acetic acid.

1. **Give a comprehensive account of ANY ONE of the following 10 × 1 = 10**

15. Mechanism of antimicrobial drug action and add a note on antibiotic resistance in microbes.

16. Diversity of soil microflora. Why do microbes show affinity to rhizosphere microenvironment?

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