



**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU-27**

**M.Sc. Botany IV Semester**

**SEMESTER EXAMINATION: APRIL 2023**

**(Examination conducted in May 2023)**

**BODE 0421: MICROBIOLOGY**

Time- 2 ½ hrs Max Marks-70

This question paper contains **ONE** printed page and **THREE** parts

Draw labelled diagrams wherever necessary

**Part-A: Answer any 10 questions in one or two sentences 2X 10=20**

1. Rhizosphere

2. Humin

3. Antifoam agents

4. HTST

5. Rezasurin test

6. Secondary water treatment

7. Tetanus toxoid

8. Neuraminidase

9. Hypersensitivity

10.Immunoassay

11. Biofilm

12. Aflatoxin B1

**Part-B: Write critical notes on any 5 of the following 6X 5=30**

 13. Molecular mechanism of nitrogen fixation.

 14.Types of soil microflora.

 15. Ideal characteristics of an industrial Bioreactor

 16. Commercial production of Lactic acid.

 17. Biochemical transformations in milk

 18. Role of microbes in solid waste composting

 19. Antibody diversity in the immune system

**Part-C: Give a comprehensive account of any 2 of the following 10X2=20**

20. Discuss in detail the production of monoclonal antibodies and its significance.

 21. Describe the process of humus formation and its importance in agriculture.

 22. Discuss in detail the Etiology, Epidemiology and treatment of *Mycobacterium tuberculosis*