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

Registration Number:

Date & Session12-12-22 (9am)

**B.Sc. – V SEMESTER**

**SEMESTER EXAMINATION: OCTOBER 2022**

**(Examination conducted in December 2022)**

**MB 5218: AGRICULTURAL AND ENVIRONMENTAL MICROBIOLOGY**

**Time: 2 ½ Hours Max Marks: 70**

This question paper contains **2** printed pages and **four** parts

**I.** Answer any **Five** of the following **5x3=15**

1. Define and give the importance of Humus.

2. Write notes on AMF.

3. What is Bordeaux mixture?

4. List the sources for Air pollution and problems associated.

5. Give the principle and a sketch of a Bead Impinger.

6. Write a note on TMV.

7. Highlight the importance of *Azolla*.

**II.** Answer any **Five** of the following **5x5=25**

8. Discuss the role of microorganisms in the oxidation of metals.

9. Write notes on the Downy mildew of Grapes.

10. Diagrammatically describe the Cascade impactor.

11. Describe the mode of action of *Bacillus* *thuringiensis*.

12. What is the method to check Coliforms in drinking water? Describe.

13. Write notes on Phosphate solubilization.

14. Describe the Nitrogen cycle in detail.

**III.** Answer any **Two** of the following **2x10=20**

15. Describe the production of *Rhizobium* as a biofertilizer.

16. Discuss the *Ex*-*situ* methods used in bioremediation.

17. Discuss the steps involved in the production of Biogas.

**IV.** Answer the following **1x10=10**

18. Damages happen to plants due to various reasons. Diseases caused by pathogens outnumber the other reasons. If a disease can be avoided, what action needs to be taken? What is the method followed by farmers to remove a particular infection in a field? Give the benefits of one such method.