Reg. No. :	
Name :	

IV Semester B.Sc. Degree (C.B.C.S.S. – OBE-Regular/Supplementary/ Improvement) Examination, April 2025 (2019 to 2023 Admissions)

COMPLEMENTARY ELECTIVE COURSE IN MICROBIOLOGY FOR B.Sc. BIOCHEMISTRY/B.Sc. BIOTECHNOLOGY/B.Sc. LIFE SCIENCES (ZOOLOGY) AND COMPUTATIONAL BIOLOGY

4C05MCB: Applied Microbiology - II

Time: 3 Hours Max. Marks: 32

Instruction: Draw diagrams wherever necessary.

PART - A

Short answer. Answer all questions. Each question carries 1 mark.

- 1. Sludge.
- 2. Nod factor.
- 3. Types of solid wastes.
- 4. Herbicides.

5. Nitrogenase.

 $(5 \times 1 = 5)$

PART +B

Short essay. Answer any 4 questions. Each question carries 2 marks.

- 6. Azolla-Anabaena association.
- 7. Chlorination.
- 8. Methanogens.
- 9. Biomagnification.

10. Imhoff tank. (4×2=8)



PART - C

Essay. Answer **any 3** questions. **Each** question carries **3** marks.

- 11. Symbiotic nitrogen fixation.
- 12. Anaerobic sludge digestion.
- 13. Sanitary landfills.
- 14. Effect of pesticides on soil microflora.
- 15. Mycorrhiza and its significance.

 $(3 \times 3 = 9)$

PART - D

Long essay. Answer any 2 questions. Each question carries 5 marks.

- 16. Write a note on the production of microbial inoculants.
- 17. What are the characteristics of sewage? Describe the methods for the biological treatment of sewage.
- 18. What are the common strategies for the disposal of solid wastes? Elaborate on composting.
- 19. Write a note on pesticides. Discuss the role of microorganisms in bioremediation of pesticides. (2×5=10)