

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2024
(Regular/Improvement/Supplementary)
ZOOLOGY
FZOL3C09 - MICROBIOLOGY & BIOTECHNOLOGY

Time: 3 Hours**Maximum Weightage: 30****Part A: Answer any *four* questions. Each carries *two* weightage.**

1. What is chromosome walking?
2. Write brief notes on SNPs.
3. Explain gene knockouts.
4. What is Microbial drug resistance?
5. Briefly explain the role of numerical taxonomy in microbial classification.
6. Differentiate between Lytic cycle and lysogenic cycle.
7. What is Alcoholic fermentation? **(4 × 2 = 8 weightage)**

Part B: Answer any *four* questions. Each carries *three* weightage.

8. Discuss the various methods for the control of microorganisms.
9. Explain the symptoms, course of progression and treatment of RABIES and TETANUS.
10. Describe the various enzymes used in rDNA technology.
11. Briefly explain the biosynthesis of peptidoglycan in bacteria.
12. What are GEOs? Discuss in detail about their ethical and social implications and social acceptance.
13. Describe in detail about Intellectual Property Rights.
14. Explain the methods for the restoration of degraded lands.

(4 × 3 = 12 weightage)

Part C: Answer any *two* questions. Each carries *five* weightage.

15. What are cloning vectors? Explain various types with examples. What are the properties of a good cloning vector?
16. Explain the methods of sequencing the DNA.
17. Discuss the nutritional requirements of microbes. Explain with examples the various nutritional types.
18. Give a detailed account on: (a) Microbial characteristics and treatment of waste water.
(b) Microbiological analysis of drinking water.

(2 × 5 = 10 weightage)