

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2020
ZOOLOGY
FZOL3C09 – MICROBIOLOGY & BIOTECHNOLOGY

Time: Three Hours

Maximum Weightage: 30

Part A: Answer any *four* questions. Each carries *two* weightage.

1. Describe microbial drug resistance.
2. Briefly explain different types of viruses.
3. Write about biogas plant.
4. Comment on virus-host interactions.
5. Describe DNA finger printing.
6. Enumerate the advantages and disadvantages of cloning.
7. What are molecular probes? Describe any four of them.

(4 × 2 = 8 weightage)

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

8. Describe the structural difference in cell wall of gram positive and gram negative bacteria.
9. Explain the influence of environmental factors of microbial growth.
10. Describe the methods used for enumeration of microbial cell number.
11. Explain any three transfection methods.
12. Describe the role of transgenic animals in human welfare.
13. Enumerate different types of cloning vectors.
14. Describe DNA sequencing.

(4 × 3 = 12 weightage)

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

15. Explain different methods for the control of microorganisms.
16. Write an essay on human diseases caused by viruses.
17. Describe the techniques involved in *in vitro* fertilization and embryo transfer. Add a note on its significance.
18. Write an essay on ethical and social implications of biotechnology.

(2 × 5 = 10 weightage)