

Third Semester M.Sc. Degree Examination (CSS) - Zoology

ZY3CT13 Course XIII – MICROBIOLOGY AND BIOTECHNOLOGY

Time: 3Hours

Total Weight: 30

Section I -Short answer type questions

Weight -1

Answer any10 out of 12

1. What is spontaneous generation? Who disproved it and How?
2. Define Nosocomial infections.
3. What is microbial spoilage?
4. Comment on Yeast artificial chromosome.
5. Give the different steps in Polymerase chain reaction.
6. Briefly describe Gene knockout technique.
7. What are Single cell proteins? Why are they significant?
8. Comment on Terminator gene technology.
9. What are Biosensors? Explain their role in medicine.
10. Write notes on viral replication.
11. What are Prions? Mention their significance.
12. Comment on TRIPs.

Section 11-Short essay type questions

Weight-2

Answer any 5 out of 8

13. Classify microorganisms on the basis of sources of Carbon.
14. Explain interactions between microbes and animals with examples.
15. Discuss the mechanism of microbial pathogenicity
16. What is Bioterrorism? Comment on biological weapons.
17. Explain blotting techniques. Add a note on the significance.
18. Discuss the methods of stem cell culture and describe its applications.
19. Give an account on DNA sequencing methods.
20. Discuss the techniques of tissue engineering with examples.

Section III - Long essay type questions

Weight-5

Answer any 2 out of 3

21. Describe the ultra structure of bacterium with suitable illustrations.
22. Write an essay on molecular markers and their applications in modern biology.
23. Explain the different methods for the selection and screening of transformed cells.