

REG.NO

MAXIMUM MARKS: 70

TIME: 3 HOURS

(K1)

(K2)

(5 X 4 = 20 MARKS)

12. a) What are the general characteristic features of virus?/ Explain the biology of Virus.
(OR)
b) Illustrate the structure of bacteriophage with a clear diagram.
13. a) How can you detect the biochemical changes in food spoilage due to microbes? Explain.
(OR)
b) Give a brief note on bacterial diseases in human.
14. a) Define innate Immunity. What are the physical and chemical barriers of innate immunity?
(OR)
b) Illustrate the structure of thymus with clear labeled diagram.
15. a) What are the properties of immunoglobulin?
(OR)
b) What are the techniques involved in detection and treating of tumor cells?

SECTION – C (4 X 10 = 40 MARKS)

ANSWER ANY FOUR OUT OF SIX QUESTIONS.

(16TH QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS FROM Q.NO: 17 TO 21)

(K4) OR (K5)

16. Write a detailed account of Major Histocompatibility Complex (MHC) types and function.
17. Give a detailed account of the branches of applied microbiology and their scopes in current scenario.
18. Explain the various methods of isolation and pure culture techniques used in microbial culture.
19. Write an account of the general characteristic features, structure and types of bacteria.
20. Write an essay on bio-fertilizer and their uses in agriculture field.
21. Describe the humoral and cell mediated immunity with suitable example .

ETHICAL PAPER