

Register No.: Name:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

THIRD SEMESTER B.TECH DEGREE EXAMINATION (S), MAY 2022

FOOD TECHNOLOGY (2020 SCHEME)

Course Code: 20FTT203

Course Name: Food Microbiology

Max. Marks: 100

Duration: 3 Hours

PART A

(Answer all questions. Each question carries 3 marks)

1. Briefly describe the working principle of dark field microscope.
2. Describe any two long term preservation methods used for bacterial cultures.
3. Comment on *Clostridium* and *Lactobacillus*.
4. List out any three organisms responsible for food borne illness.
5. Give a brief account on Flow cytometry
6. What is RIA? How is it useful in microbiological analysis?
7. List out the HACCP principles.
8. Write a note on GMPs.
9. What are Probiotics, why is it significant?
10. Write a short account on Amylase.

PART B

(Answer one full question from each module, each question carries 14 marks)

MODULE I

11. a) Explain the working of electron microscopes with neat labelled diagram. (12)
b) List out the difference between light microscope and electron microscope. (2)

OR

12. a) Describe the different phases of growth curve. (12)
b) Explain with neat diagram. (2)

MODULE II

13. a) Define food poisoning and food intoxication. (2)
b) Give a detailed account on any 3 food borne diseases. (12)

OR

14. Write an essay on spoilage of any fish and fish products. (14)

MODULE III

15. a) Describe the qualitative methods used to enumerate microorganisms in food. (7)
b) Explain the quantitative methods in detail to enumerate microorganisms in food. (7)

OR

16. a) What are Biosensors? Give its working principle. (10)
b) Explain the applications of biosensors in Food Microbiology. (4)

MODULE IV

17. a) Explain the flow diagram, worksheet and applications of HACCP. (12)
b) List out the limitations. (2)

OR

18. Give a short account on any four quality assurance systems in food industry. (14)

MODULE V

19. a) Describe in detail the fermentative production of vinegar. (4)
b) Write down the procedure for beer and wine production. (10)

OR

20. Write an essay on any 4 important microbial enzymes used in food processing and mention their uses. (14)
