

Register No.: Name:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

THIRD SEMESTER B.TECH DEGREE EXAMINATION (Regular), DECEMBER 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. Describe the purpose and procedure for serial dilution method
2. Differentiate the terms resolving power and magnification of a microscope
3. List out the various source of microorganisms getting into food which leads to food spoilage or food poisoning and their preventive measures
4. Differentiate food borne disease and food borne intoxication with examples
5. Compare qualitative analysis with quantitative analysis of microorganisms with an example for each
6. Explain the principle involved in Limulus Amebocyte Lysate for endotoxin testing
7. Write about the different food related hazards with an example
8. Describe the objectives and duties of Food Safety and Standards Authority of India
9. Write about probiotics with its ideal characteristic features
10. What is fermentation? Discuss the advantages of fermented foods

PART B

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

MODULE I

11. a) What are the different methods for preservation of pure culture? (8)
b) Explain the various factors affecting the spoilage of foods (6)

OR

12. a) List out any 2 scientists with their significant contributions in the field of microbiology (4)
b) Describe the components of bright field microscope with proper illustration (10)

MODULE II

13. a) Explain the classification of food based on their ease of spoilage with examples (4)
b) Elucidate in detail about any two microbial toxins with the microorganisms involved, symptoms, mode of transmission and preventive measures (10)

OR

14. Discuss on various microorganisms associated with spoilage of meat and describe the types of meat spoilage (14)

MODULE III

15. a) Explain the methods you will follow to enumerate the number of bacteria in food sample using standard plate count method with the help of diagram (9)
b) Illustrate working principle of biosensors with the parts involved (5)

OR

16. Write about the principle of Enzyme Linked Immuno-Sorbent Assay and its application in food industries (14)

MODULE IV

17. Explain the steps involved in Hazard Analysis Critical Control Point and their significance in maintaining the quality of food. (14)

OR

18. a) Make a Hazard Analysis Critical Control Point Worksheet and substantiate its importance in identifying hazards (7)
b) Write about the role of Codex Alimentarius Commission in developing global food standards (7)

MODULE V

19. a) Explain the production process of any one fermented meat and fish product using a detailed flowchart (8)
b) What are microbial enzymes and discuss their importance in food industry (6)

OR

20. Elucidate the production process of one Cereal based fermented food and one fermented milk product (14)
