

Register No.: Name:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

SEVENTH SEMESTER B.TECH DEGREE EXAMINATION (S), FEBRUARY 2024**FOOD TECHNOLOGY****(2020 SCHEME)****Course Code : 20FTT401****Course Name: Food Processing and Preservation****Max. Marks : 100****Duration: 3 Hours****PART A*****(Answer all questions. Each question carries 3 marks)***

1. Summarize the historical developments that have occur in the field of food processing and preservation.
2. Describe the application of any three microorganisms involved in processing and preservation of foods.
3. Define the term blanching. Illustrate any two types of blanching practiced in food industries.
4. Explain dehydro freezing.
5. Discuss the major differences between drying and dehydration.
6. Explain the principles of drying.
7. Define reverse osmosis.
8. Explain the role of evaporators in food industries.
9. Outline the factors affecting minimal processing of fresh foods.
10. Discuss the merits and demerits of hurdle technology.

PART B***(Answer one full question from each module, each question carries 14 marks)*****MODULE I**

11. List out the major classes of food additives used in food processing. Explain the permissible limits and the safety aspects with suitable examples. (14)

OR

12. a) Describe Food Fermentation. (4)
b) Explain the utilization and applications of enzymes in processing and preservation of foods. (10)

MODULE II

13. a) Describe Pasteurization. (3)

- b) Explain the process of canning with the help of flow diagram. (11)

OR

14. a) Discuss the principles of sterilization (2)
b) Explain CAP, MAP, and Vacuum Packaging. (12)

MODULE III

15. a) Outline the physicochemical changes that happens in foods during drying. (5)
b) Illustrate the working mechanism of fluidized bed dryer with the help of diagrammatic representations. (9)

OR

16. a) Discuss on Water Activity. (3)
b) Compare Cabinet Drying and Tunnel Drying. (11)

MODULE IV

17. a) Comment on the general principles of membrane processing. (4)
b) Demonstrate the types of evaporators. (10)

OR

18. a) Explain Membrane Fouling. (5)
b) Outline the membrane applications in food industries. (9)

MODULE V

19. a) Describe the technologies involved in minimal processing of foods. (7)
b) Summarize microbial and enzymatic inactivation involved in Novel Food Processing Technologies. (7)

OR

20. a) Explain the principle and applications of high-pressure processing. (6)
b) Microorganisms should not be able to jump over all hurdles present in the food product. Support the statement with suitable justification. (8)
