Register No.: .... Name: ....

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

SIXTH SEMESTER B.TECH DEGREE EXAMINATION (S), AUGUST 2023
FOOD TECHNOLOGY
(2020 SCHEME)

Course Code :   **20FTT306**

Course Name: **Food Additives and Flavorings**

Max. Marks :   **100**   **Duration: 3 Hours**

PART A
(Answer all questions. Each question carries 3 marks)

1. Define the following terms: ADI, NOEL, Maximum permissible limit.
2. What is the role of JECFA in regulating additive approval?
3. Explain the mode of action of nisin.
4. How do acidity regulators function as a food additive?
5. What is HLB? Why is it important?
6. What is the role of guar gum and gum arabica in food processing?
7. What are polyols? Give an example and its application.
8. Differentiate dyes and lakes with examples.
9. Define Scoville unit. Where does it find an application?
10. Give some applications of flavoring agents in food industry.

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

MODULE I

11. a) Define food additive. How it is different from a food adulterant?   (4)
    b) How are food additives classified? Explain with examples.   (10)

OR

12. How will you perform risk assessment of a food additive? Detail on the steps taken.   (14)

MODULE II

13. a) What are Preservatives? Explain their mode of action.   (6)
    b) Give some relevant examples of permitted preservatives, levels of usage and food applications.   (8)

OR

14. a) Explain the action of benzoic acid and its salts as preservative in food processing. (8)

    b) What is Natamycin? How does it help in preservation of food? (6)

MODULE III

15. What are thickeners? What is their role in food processing? Explain with suitable examples and their applications. (14)

OR

16. a) What are emulsifiers? Explain their mode of action with relevant examples. (8)

    b) Briefly explain the emulsion formation process. (6)

MODULE IV

17. a) What are colouring agents? How are they classified? (8)

    b) Give some examples of permitted colours, usage levels and food application. (6)

OR

18. a) What role do enzymes play in dairy and baking industries? Detail their mode of action. (8)

    b) Differentiate between nutritive and non-nutritive sweeteners with two examples each. (6)

MODULE V

19. a) Give an account of the sensory analysis of flavor. (8)

    b) How are flavoring agents applied in different food industries? Give examples. (6)

OR

20. a) Detail on some methods used to isolate flavors. (8)

    b) How does E-nose help in the sensory analysis of flavor? (6)

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