

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 : 20FTT205****Course Name: Food Chemistry****Max. Marks : 100****Duration: 3 Hours****PART A*****(Answer all questions. Each question carries 3 marks)***

1. Explain different types of water
2. Define vapour pressure and different factors affecting it.
3. Compare amylose and amylopectin
4. Identify the factors affecting the crystallization of carbohydrates.
5. Explain the different structures of protein
6. Distinguish between essential and non-essential amino acids
7. Discuss hydrogenation of fats.
8. Write a note on essential fatty acids
9. Explain a balanced diet.
10. Differentiate between over and under nutrition.

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

11. a) Illustrate the structure and properties of water (7)
- b) Compare any two moisture determination method in detail (7)

OR

12. a) Discuss the various functions of water in the processing of food (7)
- b) Summarize the significance of water activity and its measurement. (7)

MODULE II

13. a) Summarize gelatinization of starch and various factors affecting gelatinization (7)
- b) Explain the classification of carbohydrates (7)

OR

14. a) Discuss the different functional properties of carbohydrates (7)
- b) Identify various changes in carbohydrates during processing. (7)

MODULE III

15. Discuss the different classifications of protein (14)

OR

16. Elaborate the concept of texturized proteins and the process of texturization. (14)

MODULE IV

17. a) Explain the significance of rancidity in Fats and oils (7)

b) Discuss the various physical and chemical properties of fats. (7)

OR

18. Explain the chemical reactions of fats and oils in food processing (14)

MODULE V

19. a) How vitamins are classified? Explain its deficiency. (7)

b) Discuss about major minerals present in food. (7)

OR

20. Summarize the biological function and importance of fiber content in human body (14)
