

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: 20FTT441

Course Name: Spices and Plantation Crops Technology

Max. Marks: 100

Duration: 3 Hours

PART A

(Answer all questions. Each question carries 3 marks)

1. What are the different types of tea?
2. What is the FSSAI specification for coffee powder?
3. Give an account of chemical constituents of cocoa beans.
4. Mention any three value added products from coconut.
5. What are the characteristics of carrier agent used for flavor encapsulation with example?
6. Define seasonings and mention its industrial applications.
7. Differentiate essential oil and oleoresins with example.
8. List out the volatile compounds present in vanilla.
9. Name any one international agency responsible for quality control of spices and its role.
10. Explain the quality specification of any one essential oil.

PART B

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

MODULE I

11. a) Explain the wet processing of coffee with a neat flowsheet. (7)
b) Enumerate the physiochemical changes occurring during the process of roasting of coffee. (7)

OR

12. a) Discuss the role of fermentation in tea processing. (7)
b) How is instant tea manufactured? (7)

MODULE II

13. a) How is cocoa butter and cocoa powder manufactured? (6)
b) Explain the processing of any four value added products from cashew nut? (8)

OR

14. a) With the help of a neat flowsheet, explain the processing of chocolate. (10)
- b) Give an account of common chocolate defects. (4)

MODULE III

15. a) How will classify spices based on aromatic origin and parts used? (8)
- b) Summarize the antimicrobial properties of spices and condiments. (6)

OR

16. a) Explain the process of development of encapsulated oil. (8)
- b) What are the actors affecting encapsulation of flavor? (6)

MODULE IV

17. a) Discuss the volatile compounds present in garlic and ginger. (4)
- b) Outline the method of production of essential oil from cardamom. (10)

OR

18. a) Name the volatile and nonvolatile compounds present in pepper. (4)
- b) Enumerate the method of production of oleoresin from chilly? (10)

MODULE V

19. a) Explain the quality control analysis tests to be conducted for spice oleoresin and essential oil. (10)
- b) Mention the quality assurance system to be followed in spice industry. (4)

OR

20. Describe any three-equipment used in spice processing industry and explain the functions and significance in maintaining the quality of finished product (14)
