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Name :

Reg. No :

SECOND SEMESTER B.Voc. DEGREE EXAMINATION, APRIL 2026

(FYUGP)

CC25FPT2CJ102 - PRINCIPLES OF FOOD PRESERVATION

(B.Voc. FPT - Major Course)

(2025 Admission - Regular)

Time: 2.0 Hours

Maximum: 60 Marks

Credit: 4

Section A

Answer *all* questions. Each question carries 2 marks.

1. Describe how benzoic acid inhibits microbial growth in food products. [Level:2] [CO1]
2. Explain the process of oxidative rancidity and identify its end products. [Level:2] [CO1]
3. What is enzymatic spoilage? [Level:1] [CO1]
4. Describe the purpose of exhausting in canning. [Level:2] [CO2]
5. Why is cleaning considered an essential step before sterilization? [Level:2] [CO2]
6. Differentiate between the functions of the condenser and evaporator. [Level:2] [CO2]
7. Explain the effect of food size and shape on the osmotic process. [Level:2] [CO3]
8. Mention two types of concentrated foods and give an example for each. [Level:2] [CO3]
9. Mention two advantages and one disadvantage of dehydration. [Level:2] [CO3]
10. Differentiate between Pulsed Electric Field and High Pressure Processing based on their mode of action. [Level:5] [CO4]
11. Interpret the importance of combining mild preservation techniques instead of using a single severe treatment. [Level:5] [CO4]
12. Assess the advantages and limitations of Microwave heating in large-scale food processing industries. [Level:5] [CO4]

(Ceiling: 20 Marks)

Section B

Answer *all* questions. Each question carries 6 marks.

13. Explain the classification of food preservatives into **Class I preservatives** and **Class II preservatives**, and describe the mode of action of Class I preservatives in food preservation. [Level:2] [CO1]
14. Differentiate between the various types of pasteurization methods and explain their specific applications in dairy and fruit juice processing. [Level:2] [CO2]
15. Explain the different types of **Freezing** and describe how each type is used in food storage. [Level:2] [CO2]
16. Explain the basic principles of **Fermentation** and how microorganisms play a role in the process. [Level:3] [CO3]
17. Explain the concept of **Nanotechnology** and describe how it is applied to enhance food preservation and safety. [Level:2] [CO4]
18. Explain the sources of **Ionizing radiation** used in food processing and describe how they generate radiation for microbial inactivation [Level:2] [CO4]

(Ceiling: 30 Marks)

Section C

Answer any *one* question. The question carries 10 marks.

19. Define food preservation and explain its principles, importance, and various methods used for preserving foods. [Level:2] [CO1]
20. Define drying and explain its principle. Describe the merits and demerits of drying as a method of food preservation, and discuss the different types of drying techniques used in the food industry. [Level:3] [CO3]

(1 × 10 = 10 Marks)
