



**KERALA AGRICULTURAL UNIVERSITY**  
**B.Tech.(Food Technology) 2024 Admission**  
**I Semester Final Examination – February 2025**

FPT 1101

**Fundamentals of Food Processing (2+1)**

**Marks: 50**  
**Time: 2 hours**

**I Fill in the blanks**

**(10x1=10)**

1. In ..... processing, food and its packaging are sterilized before being sealed to prevent contamination.
  2. .... occurs when plant tissues react with oxygen, producing brown pigments.
  3. High percentage of water in fresh foods makes them ..... and leads to quick spoilage.
  4. .... Foods contain microorganisms transform food into beneficial organic acids.
  5. Canning provides a shelf life of typically ..... years under normal conditions.
- State True or False**
6. Blanching helps inactivating enzymes, thus preventing discoloration of food.
  7. Freezing increases the nutrient value of food.
  8. Yeasts can grow under anaerobic conditions.
  9. Canned foods are always less nutritious than fresh foods.
  10. Moisture loss affects the texture and appearance of fruits and vegetables.

**II Write short notes on ANY FIVE of the following**

**(5x2=10)**

1. Give the difference between fermented foods and non-fermented foods.
2. How the shelf life of preserved foods is maintained?
3. Define Food irradiation with its application in food.
4. What is fermentation? Give the principles of fermentation process.
5. What is canning?
6. What is drying and dehydration?
7. What is pasteurization? Give its different methods.

**III Answer ANY FIVE of the following**

**(5x4=20)**

1. What is blanching? Explain the steam blancher with neat sketch.
2. Describe the working principle, components, and advantages of a plate heat exchanger used for pasteurization with neat sketch.
3. Explain the principle, advantages, and limitations of UHT (Ultra-High Temperature) sterilization process.
4. What is the principle of High Pressure Processing of food? Explain the different components of a High Pressure Processing system for foods?
5. Explain fluidized bed dryer with neat sketch.
6. Explain principle, working, component, application with neat sketch Cold Plasma technology.
7. Explain in detail the classification of foods.

**IV Write an essay on ANY ONE of the following**

**(1x10=10)**

1. What is food processing? Explain levels and techniques involved in food processing.
2. Discuss the categorization of food preservation methods in terms of inhibition, inactivation and avoid recontamination.

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