

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Food Technology) (Sem.-4)
PRINCIPLES AND METHODS OF FOOD PROCESSING

Subject Code : BTFT 222-19

M.Code : 79976

Date of Examination : 05-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) Why balancing of fruits and vegetables is important?
- b) What do you mean by high-temperature short-time pasteurization?
- c) Define chemical preservatives with examples.
- d) What do you mean by sublimation?
- e) Define D-value in food processing.
- f) How thawing process is important?
- g) What is the difference between free and bound water?
- h) What is the chilling injury?
- i) Why fast freezing is preferred over slow freezing?
- j) How water activity of food can be calculated?

SECTION-B

2. What are the various mechanical drying methods that can be used for the preservation of agricultural products? Explain.
3. Briefly explain the basic modes of heat transfer with examples relating to food technology.
4. What are the various air-freezing methods available for freezing foods, explain?
5. Explain the principle of drying with different stages of drying operation.
6. Discuss the mechanism, effects, and applications of UV radiation in food preservation.

SECTION-C

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 - a) Briefly explain the 12D concept of canning process in food processing.
 - b) Discuss thermal Death Time by drawing a suitable diagram.
8. Differentiate freezing and chilling. Explain, how we can calculate the freezing time of food materials and what are the factors that may affect the freezing?
9. How evaporation and vaporization are different from each other? What are the major types of evaporators used in the dairy industry, explain?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.