

Total No. of printed pages = 6

END SEMESTER EXAMINATION – 2021

Semester : 5th

Subject Code : FPT-503

FOOD PRODUCT TECHNOLOGY - I

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks for the questions.

Instructions :

1. All questions of PART – A are compulsory.
2. Answer any five questions from PART – B.

PART – A

Marks – 25

1. Match the following Column – A with Column – B with correct connections : $1 \times 5 = 5$

Column – A

Column – B

- | | |
|---------------------|-----------------|
| (i) Hydrogenation | (a) Pulses |
| (ii) Parboiling | (b) Canning |
| (iii) Decortication | (c) Fat |
| (iv) Drying | (d) Rice |
| (v) Flat sour | (e) Dehydration |

[Turn over

2. Write true or false : 1×10=10

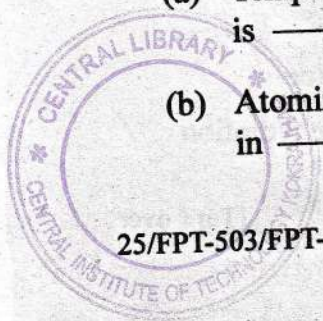
- (a) Parboiling consists of three major steps.
- (b) Germinations of pulses leads to decrease in their nutritive values.
- (c) Temperature effects the storage of fresh fruits and vegetables.
- (d) Hydrocooling uses air for cooling of foods.
- (e) Abrasion peeling uses knives for peeling of foods.
- (f) Margarine is a substitute for cheese.
- (g) Sorting and grading are similar operations.
- (h) Pasteurization inactivates enzymes to some extent.
- (i) Hydrogen swells is a type of can spoilage.
- (j) Sterilization uses a tempereture of 100°C.

3. Fill in the blanks : 1×5=5

- (a) Temperature used in drying step of malting is _____ °C.
- (b) Atomization of food particles is carried out in _____ drying.

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(2)



- (c) During parboiling, _____ of starch takes place.
- (d) Wetting the storage room floor is one of the methods to maintain _____ during storage of fruits and vegetables.
- (e) Duration of carrying out Blanching is about _____.

4. Choose the correct answers : $1 \times 5 = 5$

(a) Removal of the brown colored layer from paddy is known as

- (i) Milling (ii) Polishing
(iii) Aspiration (iv) Dehusking

(b) The paddy in CFTRI parboiling is soaked for

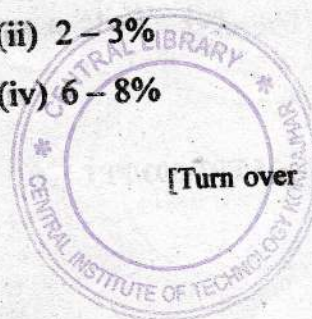
- (i) 40 minutes (ii) 1 hour
(iii) 3- 3.5 hours (iv) 20 minutes

(c) Moisture lost during vacuum cooling of foods is about

- (i) 1% (ii) 2 - 3%
(iii) 3 - 5% (iv) 6 - 8%

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(3)

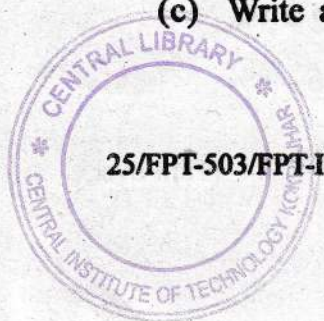


- (d) Caustic peeling uses :
- (i) Calcium Hydroxide
 - (ii) Potassium Hydroxide
 - (iii) Sodium Hydroxide
 - (iv) Hydrogen Peroxide
- (e) The kind of drying where solid foods remain suspended in air is
- (i) Fluidized bed drier
 - (ii) Tunnel drier
 - (iii) Vacuum drier
 - (iv) Tray drier.

PART - B

Marks - 45

5. (a) Explain the two types of Blanching. 3
- (b) Mention the changes in the biochemical properties post parboiling of paddy. 3
- (c) Write a small note on Food Preservation. 3



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(4)

60(W)

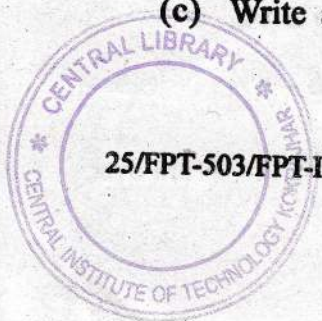
6. (a) Explain how temperature influences the storage of fresh fruits and vegetables. 3
- (b) State any four points of maintaining relative humidity during storage of fresh commodities. 3
- (c) Describe any two types of cooling of foods. 3
7. (a) Describe the changes in the physical properties post parboiling of paddy. 3
- (b) Describe any two types of spoilage that occurs in canned foods. 3
- (c) Describe any two methods of processing of pulses. 3
8. (a) Write a short note on hydrogenation of fats. 3
- (b) What are the objectives of Pasteurization and state its various types (mentioning the Time-Temperatures used). 3
- (c) What are the various objectives of drying foods ? 3

- (d) Caustic peeling uses :
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(4)

60(W)

9. (a) Describe the types of Paper or Plastic as packaging materials/containers used for packaging foods. 4.5
- (b) Explain any three methods of peeling of foods. 4.5
10. (a) Describe any two types of mechanical driers. 4.5
- (b) Explain the steps of pre-cleaning, dehusking and Polishing in rice milling. 4.5
11. (a) Explain any three methods of cleaning of foods. 4.5
- (b) Describe the process of Malting. 4.5
12. Explain the effects of thermal processing on the quality of fruits and vegetable products. 9
13. Describe the steps in In-Pack Sterilization of Foods in Canning. 9
14. Write any nine products of utilization of waste management. 9

