

D 40148

(Pages : 3)

Name.....

Reg. No.....

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2018

(CUCBCSS—UG)

Food Technology

FTL 6B 18—TECHNOLOGY OF FRUITS AND VEGETABLES

Maximum : 80 Marks

Time : Three Hours

Part A (Objective Type Questions)

I. Choose the appropriate answer :

1 Preservative used in the preservation of tomato products :

- | | |
|----------------|----------------------|
| (a) Sobicacid. | (b) KMS. |
| (c) Nitrites. | (d) Sodium benzoate. |

2 Brine is a solution of :

- | | |
|----------------------|-------------------------------|
| (a) Iodine in water. | (b) Sulphur in water. |
| (c) Sugar in water. | (d) Sodium chloride in water. |

3 Effective inhibitors of ethylene in fruits and vegetables :

- | | |
|-----------------------|----------------------|
| (a) KMnO_4 . | (b) 1-MCP. |
| (c) CO_2 . | (d) Calcium carbide. |

4 Richest source of Ascorbic Acid among Fruits :

- | | |
|------------|------------------|
| (a) Guava. | (b) Amla. |
| (c) None. | (d) (a) and (b). |

5 pH of the food which divides between acid and non-acid foods is :

- | | |
|--------|----------|
| (a) 0. | (b) 4.5. |
| (c) 7. | (d) 14. |

6 Best storage temperature for Pineapple is :

- | | |
|--------------------------------|--------------------------------|
| (a) $2 \pm 1^\circ\text{C}$. | (b) $8 \pm 1^\circ\text{C}$. |
| (c) $12 \pm 1^\circ\text{C}$. | (d) $18 \pm 1^\circ\text{C}$. |

Turn over

- 7 Brine strength is measured by :
- (a) Solometer. (b) Refractometer.
(c) Photometer. (d) Calorimeter.
- 8 Marmalade is prepared from :
- (a) Amla. (b) Pumpkin.
(c) Orange. (d) None of these.
- 9 Mineral nutrition applied to fruits to extend the postharvest life :
- (a) Calcium. (b) Magnesium.
(c) Phosphorus. (d) All of these.
- 10 Following fruit is non-climacteric in nature :
- (a) Grape. (b) Mango.
(c) Both (a) and (b). (d) None.

(10 × 1 = 10 marks)

Part B (Short Answer)

II. Answer any five of the following :

- 11 Explain how do you test the defected cans ?
- 12 Why KMS cannot be used for preservation of colored juices ?
- 13 Why do the non acidic vegetables require severe sterilization during canning than the fruits ?
- 14 What is lacquering? Why the Sulphur resistant lacquer coated cans are only used for non-acid food products?
- 15 Why there is very limited scope for nonclimacteric type than climacteric type fruits ?
- 16 In MAP, active packaging is more expensive than passive packaging ?
- 17 Why precooling is indispensable for tropical and subtropical fruits before storage ?

(5 × 2 = 10 marks)

Part C (Short Essay)

III. Answer any six of the following :

- 18 Write about natural and artificial methods of fruit ripening, their merits and demerits.
- 19 Explain in detail the spoilages canned foods due to physical and chemical Changes.

- 20 The principle of dehydration, methods of drying and advantages and disadvantages of different types of driers.
- 21 The principle of canning and describe in detail the various unit of operations involved in canning of fruits.
- 22 Write about enzymatic browning and non enzymatic browning with one example for each and explain briefly about method to overcome these in food products.
- 23 The principle involved in preparation of fruit juice concentrate and describe in detail the various unit of operations involved in fruit juice concentrate
- 24 Explain briefly about pectin, types of pectin, importance of jelly grade and advantages of solid pectin over liquid pectin, role of pectin in food industries.
- 25 Write about natural and artificial methods of fruit ripening, their merits and demerits.

(6 × 5 = 30 marks)

Part D (Essay)

IV. Answer any *two* of the following :

- 26 Write about preharvest and postharvest factors influencing storage life and post harvest quality of fruits and vegetables
- 27 Define Fruit ripening, Write briefly about the physico-chemical and physiological changes associated with fruit ripening process.
- 28 What do you mean by crystallization in jam production and what are the measures to overcome this problem?
- 29 Write about Principles of food preservation, explain the different methods of food Preservation ?

(2 × 15 = 30 marks)