



## GIET UNIVERSITY, GUNUPUR – 765022

B. Sc (AG) (Sixth Semester) Examinations, June – 2021

### HT-365 – Post Harvest Management and Value Addition of Fruits and Vegetables

Time: 2 hrs

Maximum : 50 Marks

**The figures in the right hand margin indicate marks.**

#### PART – A

**Q.1. Fill in the blanks with suitable word / figure. (0.5 x 10 = 5 Marks)**

- a. \_\_\_\_\_ cooling system is the best short-term storage of fruits and vegetables at farm level.
- b. Musk melon should be harvested at the formation of \_\_\_\_\_.
- c. Removal of field heat from commodities known as \_\_\_\_\_.
- d. \_\_\_\_\_ is an effective operation to reduce the water loss during storage from onion and garlic.
- e. \_\_\_\_\_ is commonly known as the "senescence hormone".
- f. Central Institute of Post-Harvest Engineering & Technology is located at \_\_\_\_\_.
- g. In \_\_\_\_\_ cooling, liquid ice, crushed or fine granular ice is used to cool the produce.
- h. Rapid cooling of horticultural produce can be carried out with \_\_\_\_\_ cooling.
- i. \_\_\_\_\_ canning is a technique in which food is sterilized outside the can and then aseptically.
- j. Most suitable material for canning of vegetables is \_\_\_\_\_.

**Q. 2. Define (or) Explain the following in one or two sentences. (1 x 5 = 5 Marks)**

- a. Chilling injury.
- b. FSSAI
- c. Maturity index.
- d. Pre-cooling.
- e. Climacteric fruits.

**Q3. Choose the most appropriate answer from the following (0.5 x 10 = 5 Marks)**

- a. Which one of the following is an effective operation to reduce the water loss during storage
 

(i) Curing	(ii) Pre-cooling
(iii) Waxing	(iv) Drying
- b. In waxing of fruits waxes are
 

(i) Esters	(ii) Fatty acid
(iii) Alcohols	(iv) All
- c. Which one of the following is a Climacteric fruits
 

(i) Mango	(ii) Kinnow
(iii) Orange	(iv) Pomegranate
- d. De-greening is the process of decomposing green pigment (Chlorophyll) is applicable to
 

(i) Guava	(ii) Grapes
(iii) Citrus	(iv) Pomegranate
- e. In which type of canning food is sterilized outside the can
 

(i) Aseptic canning	(ii) Hot pack
(iii) Bottling	(iv) Syruping
- f. The law Fruit Products Order (FPO) law introduced to India in the year

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- (i) 1955 (ii) 1960  
 (iii) 1973 (iv) 1982
- g Fruit Safety and Standards Authority of India (FSSAI) is established, in the year  
 (i)1985 (ii)2006  
 (iii)2011 (iv)2014
- h FSSAI head quarter is located at  
 (i) New Delhi (ii) Chennai  
 (iii) Mumbai (iv) Kolkata
- i According to FPO, the maximum amount of SO<sub>2</sub> allowed in fruit juice is  
 (i) 100 ppm (ii) 200 ppm  
 (iii) 500 ppm (iv) 700 ppm
- j Flame peeling is used for  
 (i) Onion (ii) Potato  
 (iii) Cabbage (iv) Carrots

**Q4. Write True or False against each statement****(0.5 x 10 = 5 Marks)**

- Post-harvest expose of fruit and vegetables to high temperature increases the self-life.
- Jam is a fruit jelly where slice of fruit are suspended.
- Feni is prepared from fig.
- Waxing is done to increase the rate of respiration.
- The Physiological mature stage is followed by senescence.
- The action of benzoic acid is reduced considerably at pH 5.0.
- The first synthetic sweetening agent was saccharin
- A solution of salt in water is called syrup.
- RTS is a type of fruit beverage which contains at least 10% fruit juice.
- Neera, is a sap extracted from the inflorescence of various species of toddy palms and used as drink.

**PART – B****Attempt ANY FIVE questions. All question carries equal marks****(6 x 5 = 30 Marks)**

- Describe in brief chemicals used for hastening and delaying ripening of fruits.
- Describe in brief importance of post-harvest technology of fruits and vegetables.
- Describe in brief traditional and advance methods of storage of fruits and vegetables.
- Describe in brief different maturity index.
- Describe in brief pre harvest factors affecting post-harvest self-life of fruits and vegetables.
- Describe in brief packaging of fruits and vegetables.

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