

**POST GRADUATE DIPLOMA IN  
FOOD SCIENCE AND TECHNOLOGY  
(PGDFT)**

**Term-End Examination**

**June, 2013**

**MFT-009 : FRUIT AND VEGETABLE  
TECHNOLOGY**

*Time : 3 hours*

*Maximum Marks : 70*

*Note : Answer any five questions. All questions carry equal marks.*

1. Fill in the blanks in the followings :
  - (a) Attractive colour of many fruits are due to \_\_\_\_\_ derivatives of \_\_\_\_\_. 2
  - (b) \_\_\_\_\_ and \_\_\_\_\_ are the most important factors that affect shelf life of stored horticultural produce. 2
  - (c) \_\_\_\_\_, a natural hormone produced by some fruits as they \_\_\_\_\_. 2
  - (d) \_\_\_\_\_ are the primary substrate for respiration. 1
  - (e) At the time of fruit ripening loss of \_\_\_\_\_ is accompanied by the biosynthesis of \_\_\_\_\_. 2
  - (f) Vitamin C is chemically called \_\_\_\_\_. 1
  - (g) Red colour of tomato is due to \_\_\_\_\_. 1
  - (h) Colour in strawberry is due to \_\_\_\_\_. 1
  - (i) Jelly properly set at \_\_\_\_\_ pH. 1
  - (j) Fruits and vegetables are perishable due to \_\_\_\_\_ content. 1

2. Answer the followings : **4x3½=14**
- (a) Why fruits and vegetables are called as protective foods ?
  - (b) How post harvest management of fruits and vegetables can generate employment in rural areas ?
  - (c) What are the basic functions of packaging ?
  - (d) Why we store fruits ? Describe the advantages of refrigerated storage.
3. Enlist the packaging materials for fruits and vegetables. Explain any of the two. **4+5+5=14**
4. (a) Define the followings : **4x2=8**
- (i) Minimal processing
  - (ii) Canning process
  - (iii) Squash
  - (iv) Cordial
- (b) Write full form for the followings : **6x1=6**
- (i) GMP
  - (ii) KMS
  - (iii) GAP
  - (iv) HACCP
  - (v) IQF
  - (vi) HTST
5. Write short notes on the followings : **4x3½=14**
- (a) Fruit Jam
  - (b) Fruit Jelly
  - (c) Fruit Candy
  - (d) Pickle

6. Answer the following in detail : 2x7=14
- (a) Why low temperature preservation is preferred ? Enlist the different methods of low temperature preservation.
  - (b) Define drying and dehydration. Describe the advantages of drying of foods.
7. (a) Enlist the physical methods used for determination of maturity. Explain any of the two. 1+3+3=7
- (b) Write TRUE or FALSE for the followings : 7x1=7
- (i) Etheral is used for ripening of fruits.
  - (ii) Fruit and vegetable becomes more perishable after minimally processing than original.
  - (iii) Increase in maturity of pea the sugar increases but starch and protein decreases.
  - (iv) In red stage of tomato more than 90% of the fruit surface is red.
  - (v) Apple is harvested when fruit separate easily from the branch, retains firmness of pulp and taste desirable.
  - (vi) Banana is harvested when the ridges on the surface of the skin are angular only.
  - (vii) In citrus fruits, TSS : acid ratio is considered to be a good index for judging maturity.
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