

Roll No. : (in figure) _____ (in words) _____

Student Index No. _____ Regn. No. _____ of _____

Time : 2 Hours

Full marks : 40

Questions are of value as indicated in the margin

Part - I
(Objective and Short Answer Type)
(Use only ball point pen)

Time : 20 minutes

Full marks : 10

- Note:** 1. Answer in question paper itself.
2. Striking, rewriting or overwriting are not allowed in the objective type questions.

1. **Write True (T) or False (F) of the following statements:** 0.5×5=2.5
- (a) Sun drying is the most suitable method for drying of fruits and vegetables in rainy season.
- (b) Cordial contains at least 15% fruit juice and 10% TSS.
- (c) Fruits and vegetables with higher rates of respiration tend to have longer storage-life.
- (d) Vinegar is produced by lactic acid fermentation.
- (e) Climacteric fruits ripen after harvesting at proper stage of maturity.
2. **Fill up the blanks with appropriate words or phrase:** 0.5×5=2.5
- (a) In food irradiation, food is exposed to the _____.
- (b) _____ are used to delay or prevent non-enzymatic chemical reactions in food.
- (c) In freeze drying, the food is dried by _____ process.
- (d) _____ is used as chemical preservative for preservation of coloured juice.
- (e) Prevention of the entry of micro organisms by maintaining general cleanliness is called _____.
3. **Tick the correct answer from the given alternatives:** 0.5×10=5
- (a) Post Harvest Technology helps to save excess fruits and vegetables during
- (i) off-season (ii) seasonal glut
- (iii) planting season (iv) field operation
- (b) Minimum per cent of TSS in fruit squash should be
- (i) 5% (ii) 10% (iii) 20% (iv) 40%
- (c) In Pasteurization, fruit juice is heated to a temperature of
- (i) 100°C (ii) 100°C (iii) $>100^{\circ}\text{C}$ (iv) $\geq 100^{\circ}\text{C}$
- (d) The product which is not diluted before serving is
- (i) Cordial (ii) Nectar (iii) Squash (iv) Crush

(2)

- (e) The international symbol used in the label of irradiated food is called
(i) Radura (ii) Datura (iii) Iodura (iv) Dometura
- (f) The process of breaking complex carbohydrates into simple sugars is called
(i) Lignification (ii) Fermentation (iii) Saccharification (iv) Denaturation
- (g) An important maturity index for harvesting of cabbage is the
(i) Colour of the leaves (ii) solidity of the head
(iii) no. of leaves (iv) shape of the head
- (h) A device used for determining the maturity and tenderness of some vegetables especially pea is called
(i) Refractometer (ii) Penetrometer
(iii) Colorimeter (iv) Tenderometer
- (i) Which one among the following fruits is a non-climacteric fruit?
(i) Apple (ii) Avocado (iii) Banana (iv) Cherry
- (j) In vacuum cooling, produces are pre-cooled in a chamber under
(i) reduced atmospheric pressure (ii) increased atmospheric pressure
(iii) normal atmospheric pressure (iv) high temperature and atmospheric pressure

B.Sc. (Ag.) Honours Semester-VI Examination, 2018
Course No: HOR-321 (Post-Harvest Management and Value Addition of Fruits and Vegetables)

Part - II
(Descriptive Type)

Time : 100 minutes

Full marks : 30

Questions are of value as indicated in the margin

Answer *any four* questions

4. How can maturity of fruits and vegetables be judged? Enumerate the physico-chemical changes during ripening of fruits. 3+4.5=7.5
 5. What is food irradiation? Write some important uses of ionizing radiation. Describe the mechanism of action of food irradiation. 1+2.5+4=7.5
 6. Write the basic principles of food preservation. Describe briefly about some important methods of preservation. 1.5+6=7.5
 7. Why are food preservatives used? Write the general considerations for use of preservatives. Discuss in brief about two commonly used preservatives. 1.5+2+4=7.5
 8. Which method of preservation is involved in pickling? Write in brief about the method of preparation of mango pickle. Write the recipe and flow chart for preparation of orange squash. 0.5+4+1+2=7.5
 9. Write short notes on (*any three*): 2.5×3=7.5
 - (i) Roles of fermentation.
 - (ii) Forced air cooling.
 - (iii) Different packing methods.
 - (iv) Chemicals used for delaying ripening.
 - (v) Enlist tomato and mango products.
-