



## BRAINWARE UNIVERSITY

Term End Examination 2023-2024

Programme – B.Sc.(Ag)-Hons-2021

Course Name – Post-harvest Management and Value Addition of Fruits and Vegetables

Course Code - CC-BAG674 (T)

( Semester VI )

Full Marks : 50

Time : 2:0 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 20=20

1. Choose the correct alternative from the following :
  - (i) Choose the correct answer from the given options below, what is the actual meaning of RTS?
    - a) Ready To Serve.
    - b) Re Testing Substance.
    - c) Remaining Total Sugar.
    - d) Remaining Total Solid.
  - (ii) Fruits and vegetables preservation is the best way to increase shelf life. Choose the cheapest source of preservation method for fruits and vegetables.
    - a) Canning
    - b) Freezing
    - c) Drying
    - d) Fermentation
  - (iii) Preservation of food article in high temperature is done directly to kill the microbes. Choose the correct answer from the below in which process the term appertizing is used?
    - a) Syruping
    - b) Sterilization
    - c) Canning
    - d) Dehydration
  - (iv) Jelly is most suitable method for preservation of fruits. Select the correct Ph value among these which is generally used for jelly.
    - a) 2
    - b) 3
    - c) 4
    - d) 5
  - (v) Sugar percentage determine the sweetness and thickening of jelly. Choose the correct sugar percentage found in jelly.
    - a) 30-35%
    - b) 40-45%
    - c) 50-55%
    - d) 60-65%
  - (vi) Fruits with high pectin content are suitable for jelly making. Choose the actual instrument from the given options below which is used to measure the pectin content.
    - a) Jelly meter
    - b) Refractometer
    - c) Jel meter
    - d) Ph meter

- (vii) Refractometer is used for biochemical analysis of fruits. Select the actual use of hand refractometer from the options given below.
- a) Acid  
b) TSS  
c) Salt  
d) Fibre
- (viii) Squash can be consumed after dilute them in water. Select the correct sugar percentage in making of squash.
- a) 10-15%  
b) 20-25%  
c) 30-35%  
d) 40-45%
- (ix) Choose the correct answer from the given options below which one of these can be considered as class 1 preservative?
- a) KMS  
b) Benzoic Acid  
c) Salt  
d) Potassium Chloride
- (x) Choose the correct answer: the maximum limit of sulfur dioxide allowed in making of squashes and cordials.
- a) 350 ppm  
b) 500 ppm  
c) 1000 ppm  
d) 600 ppm
- (xi) Sugar percentage is crucial factor for ideal jam making. Select the actual TSS percentage value in making of jam.
- a) 62.5  
b) 65.8  
c) 68.5  
d) 64
- (xii) Choose the actual end point temperature (in degree celsius) for making of jelly at sea level from the given options below.
- a) 106  
b) 108  
c) 105  
d) 107
- (xiii) Acidity percentage determine the sourness of food products. Choose the actual acidity percentage for jelly making.
- a) 0.5  
b) 0.75  
c) 1  
d) 1.25
- (xiv) Pickling is one of the cheapest way of preservation. Choose the correct answer from the given options below which is the national pickle of India?
- a) Mango pickle  
b) Lemon pickle  
c) Cucumber pickle  
d) Carrot pickle
- (xv) Choose the correct answer from below, which one of is the actual name of CA.
- a) Controlled atmosphere storage.  
b) Centre atmosphere storage.  
c) Common Storage  
d) Controlled automatic storage
- (xvi) Choose the best pineapple variety for canning from the given options below.
- a) Queen  
b) Kew  
c) Mauritius  
d) Cayenne
- (xvii) Grape is considered as temperate fruit crop. Choose the most common method for grape preservation from the given option below.
- a) Jam making  
b) Dehydration  
c) Pickling  
d) Candy
- (xviii) Chemical preservatives are used to improve shelf life of any food commodity. Show which among these is the class 2 preservative.
- a) Sugar  
b) Vinegar  
c) KMS  
d) Oil
- (xix) Canning is the method of preservation of food product in high temperature. Select the accurate fruit for canning which is not peeled before preservation.
- a) Pineapple  
b) Mango  
c) Cherry  
d) Litchi
- (xx) Pectin is very important for jam, jelly making. Select the actual form of pectin which is found in the fruits.

- a) Pectinase
- c) Calcium pectate

- b) Protopectin
- d) None of these

**Group-B**

(Short Answer Type Questions)

2.5 x  
10=25

- 2. Construct a short note on cold storage. (2.5)
- 3. Demonstrate briefly about different storage method in horticulture crops. (2.5)
- 4. Construct a short note on preservation. (2.5)
- 5. Demonstrate different types of maturity. (2.5)
- 6. Explain briefly what is quantitative and qualitative loss? (2.5)
- 7. Demonstrate some main causes of post-harvest loss of fruits and vegetables. (2.5)
- 8. Illustrate some pre harvest factors affecting the post-harvest quality of horticultural crops. (2.5)
- 9. Explain different type of respiration in plants. (2.5)
- 10. Discuss briefly about fermentation of fruits and vegetables. (2.5)
- 11. Explain briefly about post-harvest management. (2.5)

**OR**

Explain what is Post Harvest Loss? (2.5)

**Group-C**

(Long Answer Type Questions)

5 x 1=5

- 12. Estimate the process to reduce the post-harvest losses of horticultural crops. (5)

**OR**

Explain the post-harvest factors that influencing the post-harvest quality of fruits and vegetables. (5)

\*\*\*\*\*