

**MEDICAPS**

UNIVERSITY

**Faculty of Agriculture****End Semester Examination May 2025****AG3CO46 Post-Harvest Management & Values addition of Fruits & Vegetables****Programme** : B. Sc. (Hons.) **Branch/Specialisation** : AG**Duration** : 3 hours **Maximum Marks** : 50**Note:** All questions are compulsory. Internal choices, if any, are indicated. Assume suitable data if necessary.

Notations and symbols have their usual meaning.

**Section 1 (Answer all question(s))****Marks CO BL****Q1.** Pick the odd one out which doesn't have any importance in post-harvest management?**1 1 1**

Rubric	Marks
Water conservation	1

- ☐ Preservation of quality
 ☐ Extension of shelf life  
☒ Water conservation
 ☐ Reduction of losses

**Q2.** Which of the following factors contributes to post-harvest losses in fruits and vegetables?**1 1 1**

Rubric	Marks
Inappropriate handling and transportation	1

- ☐ Adequate storage conditions
 ☐ Timely harvesting  
☒ Inappropriate handling and transportation
 ☐ Organic farming practices

**Q3.** Which technique involves the removal of moisture from fruits and vegetables to extend their shelf life?**1 2 1**

Rubric	Marks
Dehydration	1

- ☐ Fermentation
 ☐ Blanching  
☒ Dehydration
 ☐ Pickling

**Q4.** Which hormone enhance ripening process?**1 2 1**

Rubric	Marks
Ethylene	1

- ☐ Auxin
 ☐ Cytokinin  
☒ Ethylene
 ☐ Gibberellin

**Q5.** Peeling comes under which kind of post-harvest losses?**1 3 1**

Rubric	Marks
Consumption	1

- ☐ Physiological
 ☒ Consumption  
☐ Mechanical
 ☐ Metabolic

**Q6.** Change in colour, flavor, texture, taste comes under-

1 3 1

Rubric	Marks
Physical change	1

- ☒ Physical change
 ☐ Chemical change  
☐ Microbial change
 ☐ All of these

**Q7.** Which technique involves the removal of field heat from harvested produce to prolong its shelf life?

1 4 1

Rubric	Marks
Pre-cooling	1

- ☐ Solar drying
 ☒ Pre-cooling  
☐ Blanching
 ☐ Refrigeration

**Q8.** Stages of post-harvest management are-

1 4 1

Rubric	Marks
All of these	1

- ☐ Harvesting
 ☐ Packaging  
☐ Transportation/ storage
 ☒ All of these

**Q9.** Chemical preservative used for preservation is-

1 5 1

Rubric	Marks
All of the above	1

- ☐ KMS (Potassium Meta bisulphate)
 ☐ Sodium benzoate  
☐ Benzoic acid and its salts
 ☒ All of the above

**Q10.** The method of pasteurization is done-

1 5 1

Rubric	Marks
Below 100°C	1

- ☐ Above 100°C
 ☐ At about 100 °C  
☒ Below 100°C
 ☐ None of the above

## Section 2 (Answer all question(s))

Marks CO BL

**Q11.** What is post-harvest management?

2 1 1

Rubric	Marks
What is post-harvest management?	2

**Q12.** How does value addition in fruits and vegetable can be done? Explain with example.

2 1 1

Rubric	Marks
How does value addition in fruits and vegetable can be done?	1
Explain with example.	1

**Q13. (a)** Explain in brief about importance of post-harvest processing of fruits and vegetable.

4 1 1

Rubric	Marks
Explain in brief about importance of post-harvest processing of fruits and vegetable	4

(OR)

**(b)** Illustrate the extent and possible causes of post-harvest losses.

Rubric	Marks
Illustrate the extent and possible causes of post-harvest losses.	4

### Section 3 (Answer all question(s))

Marks CO BL  
2 2 1

**Q14.** Define the term quality and maturity.

Rubric	Marks
Define the term quality.	1
Define the term maturity.	1

**Q15.** Define the stages of ripening.

2 2 1

Rubric	Marks
Define the stages of ripening.	2

**Q16. (a)** Explain the different factors affecting post-harvest quality.

4 2 1

Rubric	Marks
Explain the different factors affecting post-harvest quality.	4

(OR)

**(b)** What is respiration? Explain factors affecting respiration rate.

Rubric	Marks
What is respiration?	1
Explain factors affecting respiration rate.	3

### Section 4 (Answer all question(s))

Marks CO BL  
2 3 1

**Q17.** What do you understand by harvesting?

Rubric	Marks
What do you understand by harvesting?	2

**Q18. (a)** Write in brief about hand and mechanical harvesting also mention its advantages and disadvantages.

6 3 1

Rubric	Marks
Write in brief about hand harvesting	2
Write in brief about mechanical harvesting	2
mention its advantages and disadvantages.	2

(OR)

**(b)** Define preservation. What are the different methods of preservation?

Rubric	Marks
Define preservation.	2
What are the different methods of preservation?	4

### Section 5 (Answer all question(s))

Marks CO BL  
2 4 1

**Q19.** Illustrate precooling.

Rubric	Marks
Illustrate precooling.	2

**Q20.** What do you understand by grading and sorting?

2 4 1

Rubric	Marks
What do you understand by grading?	1
What do you understand by sorting?	1

**Q21. (a)** Write the differences between fermented and non-fermented beverages.

4 4 1

Rubric	Marks
Differentiate between fermented and non-fermented beverages.	4

(OR)

**(b)** Make a flow chart in descriptive manner for post-harvest handling of fruits and vegetables.

Rubric	Marks
Make a flow chart in descriptive manner for post-harvest handling of fruits.	2
Make a flow chart in descriptive manner for post-harvest handling of vegetables.	2

### Section 6 (Answer all question(s))

Marks CO BL  
2 5 1

**Q22.** What do you understand by osmotic drying?

Rubric	Marks
What do you understand by osmotic drying?	2

**Q23.** Illustrate drying.

2 5 1

Rubric	Marks
Illustrate drying.	2

**Q24. (a)** Describe the different tomato products and its processing in detail.

4 5 1

Rubric	Marks
Describe the different tomato products and its processing in detail.	4

(OR)

**(b)** Explain canning and packaging of products.

Rubric	Marks
Explain canning	2
packaging of products.	2

\*\*\*\*\*