

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2025
(Second Semester)

Branch – FOOD TECHNOLOGY MANAGEMENT

POST -HARVEST MANAGEMENT & PROCESSING OF FRUIT & VEGETABLES

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Recall the post-harvest practices includes all the steps Except a) Harvesting b) Marketing c) Storage d) Cultivation	K1	CO1
	2	Show the primary causes of sprouting in stored potatoes is a) High humidity b) Low temperature c) Ethylene exposure d) Mechanical injury	K2	CO1
2	3	The process of removing unwanted leaves, stems, and damaged parts is called _____. a) Curing b) Trimming c) Tinting d) Pulsing	K1	CO2
	4	Infer which gas is commonly used in Modified Atmosphere Packaging (MAP)? a) Nitrogen b) Helium c) Ozone d) Hydrogen	K2	CO2
3	5	Which type of canning is commonly used for high-acid foods like fruits and tomatoes? a) Pressure canning b) Aseptic canning c) Water bath canning d) Vacuum canning	K1	CO3
	6	Show which factor significantly affects drying rate? a) Airflow b) Product shape and size c) Moisture content d) All of the above	K2	CO3
4	7	Choose the process of maintaining food at temperatures just above freezing is called a) Deep freezing b) Refrigeration c) Cryogenic freezing d) Dehydration	K1	CO4
	8	Relate the cryogenic freezing commonly uses _____ as refrigerant. a) Carbon dioxide and nitrogen b) Oxygen and helium c) Steam and ethanol d) Hydrogen and propane	K2	CO4
5	9	What is the major gelling agent used in the production of jelly and marmalade? a) Pectin b) Starch c) Gelatin d) Agar	K1	CO5
	10	What is the recommended moisture content for dried fruit slices? a) Below 5% b) 10-15% c) 20-25% d) Above 30%	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Construct details on the major causes of post-harvest losses and Discuss in two major prevention techniques.	K3	CO1
	(OR)			
	11.b.	Explain on the impact of respiration rate on the shelf life of fresh produce.		
2	12.a.	Identify what is post-harvest handling /operations and explain its importance.	K3	CO2
	(OR)			
	12.b.	Specify the details on the use of essential oils in post-harvest treatment.		
3	13.a.	Analyze the importance of pre-drying and post-drying treatments on finished products.	K4	CO3
	(OR)			
	13.b.	Simplify how cold plasma technology can help in food preservation?		
4	14.a.	List the different types of cold storage methods and explain in detail.	K4	CO4
	(OR)			
	14.b.	Compare quick freezing and sharp freezing methods.		
5	15.a.	Explain the step-by-step process of making sauerkraut.	K5	CO5
	(OR)			
	15.b.	Justify why blanching is important before freezing vegetables?		

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Inspect on chemicals used for the artificial ripening process in detail with examples.	K4	CO1
2	17	Examine the major post-harvest treatments used for extending shelf life of vegetables.	K4	CO2
3	18	Explain the canning process in detail, including the steps, types, and common spoilage issues.	K5	CO3
4	19	Highlight on Recent advancements in frozen food storage, active packaging and intelligent freezing.	K5	CO4
5	20	Discuss the technological process involved in making jam and marmalade.	K6	CO5