PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION DECEMBER 2025
(First Semester)

Branch - **FOOD PROCESSING TECHNOLOGY**

PRINCIPLES OF FOOD PROCESSING AND PRESERVATION

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	What does FATTOM stand for in food safety? a) Flavor, Aroma, Texture, Taste, Odor, Moisture b) Fermentation, Aging, Temperature, Time, Oxygen, Microbes c) Fat, Acid, Temperature, Time, Oxygen, Moisture d) Food, Acid, Temperature, Time, Oxygen, Moisture	K1	CO1
	2	Pickling preserves food primarily by controlling which FATTOM factors? a) Temperature and Time b) Acid and Moisture c) Time and Oxygen d) Food and Oxygen	K2	CO1
2	3	HTST pasteurization typically involves heating milk to a) 135°C for 2 seconds b) 72°C for 15 seconds c) 63°C for 30 minutes d) 85°C for 30 seconds	K1	CO2
	4	The key steps in canning include a) Milling, mixing, baking b) Fermenting, filtering, carbonating c) Exhausting, sealing, retorting, cooling d) Freezing, packaging, irradiating	K2	CO2
3	5	Which food undergoes undesirable texture changes if frozen slowly? a) Strawberries b) Bread c) Sugar syrup d) Butter	K1	CO3
	6	IQF stands for a) Industrial Quick Freezer b) Internally Qualified Freezing c) Individually Quick Frozen d) Instant Quality Freezing	K2	CO3
4	7	Water activity (aw) in foods refers to a) Bound water only b) Total water content in food c) The availability of water for microbial growth and chemical reactions d) Moisture lost during drying	K1	CO4
	8	Sun drying is most suitable for a) Frozen seafood b) Low-moisture, high-acid foods in hot, dry climates c) Heat-sensitive dairy products d) Pasteurized juices	K2	CO4
5	9	Irradiation primarily affects microorganisms by a) Denaturing proteins via heat b) Removing water from cells c) Increasing pH of food d) Damaging DNA and cellular structures	K1	CO5

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5	10	Bio-preservatives refer to a) Synthetic chemical preservatives b) Preservation using natural antimicrobials from biological sources (e.g., bacteriocins, organic acids) c) Preservation by freezing d) Use of irradiation only	K2	CO5

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.	Describe the importance of post harvest technology in food security.	K2	CO1
		(OR)		
	11.b.	Express the role of water activity (Aw) in food spoilage?		
2	12.a.	Illustrate the principle of pasteurization.	K3	CO2
		(OR)		
	12.b.	Summarize on UHT processing and its applications.		
3	13.a.	Explain on cold storage defects in fruits and vegetables.	K4	CO3
		(OR)		
	13.b.	Differentiate between slow freezing and quick freezing.		
4	14.a.	Explain the principles of drying and dehydration.	K4	CO4
		(OR)		
	14.b.	Outline spray drying principles, equipment, and applications.		
5	15.a.	Examine the applications of food irradiation and express two sources of irradiation.	K3	CO5
		(OR)		
	15.b.	Classify food additives with suitable examples.		

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	Explain enzymatic browning in foods its causes, examples and prevention methods.	K4	CO1
2	17	Point out general principles and importance of heat preservation in foods.	K4	CO2
3	18	Illustrate the physical and chemical changes that take place in frozen foods.	K4	CO3
4	19	Explain the process of sun drying of vegetables (drumstick leaves, coriander, mint, curry leaves) its importance and limitations.	K4	CO4
5	20	Outline the advantages and disadvantages of hurdle technology with examples.	K4	CO5

Z-Z-Z END