PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2025
(First Semester)

Branch - **FOOD TECHNOLOGY MANAGEMENT**

FOOD PROCESSING & PRESERVATION TECHNOLOGY

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	Which of the following microorganism is eliminated in canned foods? a) *Mycobacterium tuberculosis* b) *Coxiella burnetii* c) *Clostridium botulinum* d) *Lactobacillus*	K1	CO1
	2	Which of the following are NOT key constraints of the food processing industry? a) Inadequate quality control b) High packaging cost c) Low demand d) Poor infrastructure as in no cold storage, warehouse etc	K2	CO1
2	3	What is the sterilization temperature in autoclave? a) 121°C b) 100°C c) 180°C d) 150°C	K1	CO2
	4	What is the thermal death point of E coli? a) 80°C at 20 minutes b) 80°C at 30 minutes c) 80°C at 40 minutes d) 80°C at 10 minutes	K2	CO2
3	5	Statement 1: In drying, the vapor pressure of water in the solid is more than outside. Statement 2: For wet bulb, the greater the velocity, the more rapid is the rate of drying. a) True, False b) True, True c) False, False d) False, True	K1	CO3
	6	What type of evaporators used for heat sensitive materials? a) Vacuum evaporators b) Vertical type evaporators c) Climbing film type evaporators d) Forced circulation evaporators	K2	CO3
4	7	Which of the following is a common functional property that is increased by the food extrusion process? a) Decreased lipid oxidation b) Increased soluble dietary fiber c) Decreased antinutritional factors d) All of the above	K1	CO4
	8	Extrusion cooking of food materials takes place due to a) Heat b) Mechanical Shear c) Pressure d) All of the above	K2	CO4
5	9	The frequency of microwaves used for the industrial, scientific and medical is_____. a) 2000 Hz b) 915 Hz c) 1450 Hz d) 2450 Hz	K1	CO5
	10	What change does ionizing radiation produce in milk casein? a) Increase in rennet coagulation b) Reduction of its stability to heat c) Increase in rennet coagulation & Reduction of its stability to heat d) Neither of the mentioned	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.	Suggest the principle behind any two traditional preservation methods with suitable examples.	K3	CO1
		(OR)		
	11.b.	Classify the processing of foods into different categories and explain with suitable examples.		
2	12.a.	Assess the role of refrigeration in extending the shelf life of foods and justify whether low temperature preservation is alone enough to control all types of microorganisms.	K5	CO2
		(OR)		
	12.b.	Select the concept which is used as a basis for commercial sterilization and also justify how this concept provides a safety margin against Clostridium botulinum spore.		
3	13.a.	Examine how sound waves are used in drying of foods. Describe the technique with a suitable example.	K3	CO3
		(OR)		
	13.b.	For the preparation of jam, show which type of equipment is used for the removal of water and how?		
4	14.a.	Elaborate the chemical and nutritional changes that happen during extrusion of foods.	K2	CO4
		(OR)		
	14.b.	Classify the types of extruders and explain about twin screw extruder.		
5	15.a.	Outline the principle and working of High-pressure processing of foods.	K1	CO5
		(OR)		
	15.b.	Describe the working of ohmic heating with a neat schematic diagram.		

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	Summarize the scope of food processing in India with international perspective.	K5	CO1
2	17	A food producer wants to manufacture ready to eat shelf stable green peas in tomato sauce. Identify and recommend a suitable processing technique and elaborate.	K4	CO2
3	18	Classify dryers based on batch and continuous & modes of heat transfer. Explain about any one continuous type dryers.	K3	CO3
4	19	Identify and explain the changes in rheological properties of extruded foods.	K2	CO4
5	20	Elaborate on the applications of cold plasma in food processing.	K2	CO5

Z-Z-Z END