

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2025
(First Semester)

Branch – FOODS AND NUTRITION

ADVANCED FOOD SCIENCE

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	Define the term colloid. a) A solution containing electrolytes b) A two-phase system with one substance dispersed in another c) A mixture of two miscible liquids d) A true solution with uniform solute distribution	K1	CO1
	2	Tell what happens during gelatinization of starch. a) Starch granules lose water b) Starch granules swell and absorb water on heating c) Starch breaks into glucose d) Starch crystallizes	K2	CO1
2	3	Identify the toxic constituents present in some pulses. a) Trypsin inhibitors and haemagglutinins b) Vitamins and minerals c) Gluten and starch d) Organic acids only	K1	CO2
	4	Find the composition of spice powders. a) Proteins and starches b) Volatile oils and pigments c) Sugars and acids d) Minerals only	K2	CO2
3	5	Identify the main protein present in egg white. a) Ovalbumin b) Casein c) Collagen d) Gluten	K1	CO3
	6	What is the role of enzymatic tenderizers in meat cookery? a) Proteases hydrolyze muscle proteins b) Lipase increases fat absorption c) Amylase converts glycogen d) Catalase removes peroxides	K2	CO3
4	7	Name the main sugar present in milk. a) Glucose b) Lactose c) Sucrose d) Fructose	K1	CO4
	8	Why prolonged heating of sugar causes bitterness? a) Caramelization b) Crystallization c) Hydrolysis d) Fermentation	K2	CO4
5	9	Select a traditional fermented beverage. a) Kombucha b) Lemonade c) Tulsi tea d) Golden milk	K1	CO5
	10	Spell the nutritive importance of ashwagandha tea. a) Adaptogen b) Sweetener c) Color enhancer d) Carbonation	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

 $(5 \times 7 = 35)$

Module No.	Question No.	Question	K Level	CO
1	11.a.	Classify the types of colloids.	K3	CO1
		(OR)		
	11.b.	Build the physicochemical properties of starch.		
2	12.a.	Construct the composition of nuts and oilseeds.	K3	CO2
		(OR)		
	12.b.	Examine the browning reaction in fruits and vegetables.		
3	13.a.	Analyse the functional properties and culinary qualities of egg.	K4	CO3
		(OR)		
	13.b.	Infer the types and characteristics of meat analogues.		
4	14.a.	Interpret on effect of heat and acid on milk.	K5	CO4
		(OR)		
	14.b.	Summarize the uses of paneer and curd in Indian cookery.		
5	15.a.	Evaluate the historical significance of beverages.	K5	CO5
		(OR)		
	15.b.	Explain the importance of sense organs in sensory evaluation.		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

 $(3 \times 10 = 30)$

Module No.	Question No.	Question	K Level	CO
1	16	Elaborate the development of gluten and factors affecting the gluten formation.	K3	CO1
2	17	Determine the physical & chemical changes during ripening and cooking of fruits and vegetables.	K3	CO2
3	18	Explain the structure and composition of egg.	K4	CO3
4	19	Interpret on types of rancidity and its prevention.	K5	CO4
5	20	Assess the types of traditional cooking methods.	K5	CO5