

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION MAY 2026
(First Semester)**

Branch- **NUTRITION, FOOD SERVICE MANAGEMENT AND DIETETICS**

FOOD CHEMISTRY

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 foods has the highest water activity (a_w)? a) Dried fruits b) Fresh meat c) Milk powder d) Biscuits	K1	CO1
	2	Interpret the angle between hydrogen atoms in water (approx.). a) 90° b) 104.5° c) 120° d) 180°	K2	CO1
2	3	Recall the best example for oil in water Emulsion a) Mayonnaise b) Butter c) Milk d) Marshmallow	K1	CO2
	4	French dressing separates quickly while mayonnaise remains stable for a long time. This difference is mainly due to a) Type of fat used b) Presence or absence of effective emulsifier c) pH of the medium d) Heating process	K2	CO2
3	5	Spell the primary storage polysaccharide in plants. a) Cellulose b) Pectin c) Glycogen d) Starch	K1	CO3
	6	The deep fried oil is highly susceptible to _____ a) Oxidative Rancidity b) Hydrolytic Rancidity c) Both (a) and (b) d) None of the Above	K2	CO3
4	7	Define isoelectric point of protein. a) pH at which protein carries no net charge b) pH at which protein is fully soluble c) Temperature at which protein denatures d) pH at which protein hydrolyzes	K1	CO4
	8	Browning in cut apple slices can be prevented by _____ a) Blanching or applying acid like lemon juice b) Heating at 100°C for 1 hour c) Adding fats d) Freezing immediately without acid	K2	CO4
5	9	Which pigment contributes for red colour in meat? a) Hemoglobin b) Anthocyanin c) Myoglobin d) Carotene	K1	CO5
	10	In bread making, amylases improve quality by a) Hydrolyzing starch for yeast b) Breaking down proteins c) Increasing water content d) Acting as antioxidants	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.	Infer on Hydrogen ion concentration of foods.	K2	CO1
		(OR)		
	11.b.	Summarize the changes occur during the boiling of water.		
2	12.a.	Illustrate on formation and description of gels with examples.	K2	CO2
		(OR)		
	12.b.	Extend the methods of foam formation.		
3	13.a.	Identify Cellulose, hemi cellulose and plant gum as an efficient plant polysaccharide.	K3	CO3
		(OR)		
	13.b.	Demonstrate on Polymerization and Hydrogenation process of fats and lipids		
4	14.a.	Compute on Egg proteins and animal protein.	K3	CO4
		(OR)		
	14.b.	Write about manufacturing process of Gelatin and its application in food systems.		
5	15.a.	How Fat soluble plant pigments plays a vital role in enhancing appearance of foods.	K3	CO5
		(OR)		
	15.b.	Explain the role of Synthetic Flavouring substances in evolving food era.		

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	Demonstrate the Composition of foods and factors influencing it.	K2	CO1
2	17	Classify emulsion. Write on theory of emulsification and functions of emulsifying agents with suitable examples.	K2	CO2
3	18	Identify the Physical and chemical properties of Fat.	K3	CO3
4	19	Speculate on properties of proteins and factors affecting denatured proteins.	K3	CO4
5	20	Evaluate the Food enzymes, its types and application in food industries.	K3	CO5

Z-Z-Z END