

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

**BSc DEGREE EXAMINATION MAY 2024
(First Semester)**

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

FOOD CHEMISTRY/ CHEMISTRY OF FOODS

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	When common salt is dissolved in water, then the boiling point of water a) Increases b) Decreases c) No change d) First increase and then decrease	K1	
	2	Show the range of pH scale. a) 7 to 10 b) 0 to 10 c) 0 to 14 d) 7 to 14	K2	
2	3	Name the term: Suspension of minute solid particles in a liquid. a) Foam b) Emulsion c) Sol d) Solid foam	K1	
	4	Show the example for solid foam. a) Milk b) Butter c) Jam d) Meringue	K2	
3	5	Name the insoluble precursor of pectin which when boiled in acid solution is hydrolysed to soluble pectin? a) Protopectin b) Pectic acid c) Methyl alcohol d) Neither of the mentioned	K1	
	6	Infer the term that denotes the temperature at which a fat or oil gives off a thin bluish smoke? a) Smoke point b) Melting point c) Flash point d) Plastic point	K2	
4	7	Name the key enzyme involved in enzymatic browning of fruits and vegetables. a) Peroxidase b) Polyphenol Oxidase c) Catalase d) Lipase	K1	
	8	Infer the physical or chemical disturbances, proteins undergo when subjected to heat, pH extremes and alcohol. a) Denaturation b) Renaturation c) Sedimentation d) Hydrolysis	K2	
5	9	Choose the fat-soluble pigment in fruits and vegetables. a) Carotenoids b) Anthocyanin c) Betalains d) Anthoxanthins	K1	
	10	Identify the enzyme that is used in corn syrup production to convert starch to dextrins. A) Cellulase B) Pectinase C) Amylase D) Protease	K2	

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.	Explain the composition of foods.	K2	CO1
	(OR)			
	11.b.	Summarize the importance of water activity.		CO2

Cont...

2	12.a.	Inspect the factors affecting gel formation.	K2	CO3
	(OR)			
	12.b.	Show the factors affecting foam stability.		
3	13.a.	Classify fatty acids.	K2	CO1
	(OR)			
	13.b.	Explain gelatinization and gelation.		
4	14.a.	Outline the steps in manufacture of gelatin and comment on its uses.	K2	CO4
	(OR)			CO5
	14.b.	Explain non enzymatic browning reaction.		
5	15.a.	Choose the certified artificial colours and list their optimum levels and uses.	K3	CO4
	(OR)			
	15.b.	Tabulate the textural characteristics of foods.		

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 the importance of hydrogen bonding in determining the unique properties of water.	K2	CO2
2	17	Outline the diphasic colloidal dispersions important in foods.	K2	CO3
3	18	Summarize the physical properties of fats.	K2	CO1
4	19	Illustrate the structure of proteins.	K2	CO4
5	20	Choose the water-soluble plant pigments and explain the changes during cooking.	K3	CO5

Z-Z-Z

END