PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION MAY 2025
(Second Semester)

Branch- FOOD PROCESSING TECHNOLOGY
CHEMISTRY - II

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	-------------- refers to transference of compounds from a solid or liquid into a different solvent or phase a) dissolving b) evaporation c) extraction d) distillation	K1	CO1
	2	The conversion of a substance from the solid to the --------- state without its becoming liquid is known as sublimation. a) molecular b) ionized c) gaseous d) liquid	K2	CO1
2	3	A centrifuge operates by using the ---------- principle. a) rotary b) osmosis c) sedimentation d) density	K1	CO2
	4	Chromatographic separation of mixtures in compounds is based on differences in ------- a) polarity b) b) concentration c) density d) gravity	K2	CO2
3	5	-----------are a class of substances that help trap and neutralize free radicals a) humectants b) antioxidants c)azeotropes d) emulsifiers	K1	CO3
	6	Natural preservatives are termed as -------- preservatives. a) class I b) class II c) class III d) class IV	K2	CO3
4	7	Foods that contain all -------- essential amino acids are called complete proteins a) five b) four c) nine d) six	K1	CO4
	8	--------- are proteins that act as biological catalysts by accelerating chemical reactions. a) enzymes b) lipids c) fats d) sugars	K2	CO4
5	9	Green colour used to indicate --------- wastes. a) animal b) industry c) non- biodegradable d) biodegradable	K1	CO5
	10	Tertiary treatment is a method of wastewater treatment that consists of eliminating ------pollutants. a) solid b) biodegradable c) non-biodegradable d) liquid	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.	Explain the extraction techniques in organic compounds with examples.	K2	CO1
		(OR)		
	11.b.	Demonstrate crystallization methods with neat diagram.		
2	12.a.	Identify the types of chromatographic techniques.	K3	CO2
		(OR)		
	12.b.	Choose the fractionation techniques used in food industries.		
3	13.a.	Elucidate the types of anti oxidants with examples.	K3	CO3
		(OR)		
	13.b.	Utilize Artificial preservatives in processed foods.		
4	14.a.	Illustrate the structure and properties of amino acids.	K4	CO4
		(OR)		
	14.b.	Discuss the factors influencing the mechanism of enzyme action.		
5	15.a.	Analyse the types of solid wastes from food industries with examples.	K4	CO5
		(OR)		
	15.b.	Examine the waste utilization techniques in food industries.		

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	Examine the types of crystallization in foods.	K4	CO1
2	17	"High-performance liquid chromatography (HPLC) is a powerful tool for product composition testing and quality controlling" – Evaluate and give the applications in food industries.	K4	CO2
3	18	Classify mineral salts. Assess the types and its importance.	K4	CO3
4	19	Investigate the Lock and Key model and Induced fit model in enzyme action.	K4	CO4
5	20	With a flow diagram assess the primary, secondary and tertiary steps in waste water treatment.	K4	CO5

Z-Z-Z   END