

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BVoc DEGREE EXAMINATION DECEMEBR 2024
(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	In a simple random sample, every member of the population has - --- chance of being selected a) zero b) equal c) single d) nil	K1	CO1
	2	The conversion of a substance from the solid to the gaseous state without its becoming liquid is known as ---- a) Evaporation b) Distillation c) Sublimation d) Concentration	K2	CO1
2	3	The ----- phase HPLC column is the most versatile and commonly used column a) revised b) reversed c) mobile d) normal	K1	CO2
	4	In TLC separation of mixtures in compounds is based on differences in ----- a) polarity b) concentration c) density d) gravity	K2	CO2
3	5	Antioxidants are a class of substances that help trap and neutralize ---- radicals a) zero b) free c) single d) ionized	K1	CO3
	6	Artificial 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 nine essential amino acids are called complete ----- a) acids b) fats c) proteins d) sugars	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	Colour used to indicate wet and biodegradable wastes is ----- . a) red b) blue c) yellow d) green	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.	Briefly explain the sample preparation methods with examples.	K2	CO1
		(OR)		
	11.b.	Define crystallization. Describe the methods in crystallization.		

Cont...

2	12.a.	Define chromatography. Illustrate the types of chromatographic techniques.	K3	CO2
	(OR)			
	12.b.	Infer the membrane separation techniques in food industries with examples.		
3	13.a.	Elucidate the structure and action mechanism of anti oxidants.	K3	CO3
	(OR)			
	13.b.	Classify artificial preservatives and give their role in processed foods.		
4	14.a.	Illustrate the structure and properties of amino acids.	K4	CO4
	(OR)			
	14.b.	Compose notes on co enzymes, cofactors and prosthetic groups of enzymes.		
5	15.a.	Interpret the types of pollutants from food industries with examples.	K4	CO5
	(OR)			
	15.b.	Examine the preliminary steps in waste water treatment with a flowchart.		

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	Justify the types of liquid purification in foods. Elaborate on the applications in food industries.	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 food colourants. Assess the extraction techniques from natural resources.	K4	CO3
4	19	Investigate the Lock and Key model and Induced fit model in enzyme action. Discuss the factors influencing mechanism of enzyme action.	K5	CO4
5	20	Appraise the primary, secondary and tertiary treatments in waste water, with flow diagram.	K5	CO5

Z-Z-Z

END