

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

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

Branch –FOOD PROCESSING TECHNOLOGY

CHEMISTRY-I

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 is a heating method in labs? a) Bunsen burner b) Magnetic stirrer c) Hot air oven d) All of the above	K1	CO1
	2	Why should volatile solvents like ether be stored carefully? a) They are non-flammable b) They have high boiling points c) They are toxic and highly flammable d) They are completely safe	K2	CO1
2	3	Which of the following is an electrovalent bond? a) HCl b) NaCl c) Cl ₂ d) CH ₄	K1	CO2
	4	The oxidation number of Fe in Fe ₂ O ₃ is: a) +1 b) +2 c) +3 d) +4	K2	CO2
3	5	When was the Arrhenius theory of acids and bases was proposed ? a) 1780 b) 1884 c) 1900 d) 1923	K1	CO3
	6	Why is buffer important in biological systems? a) Maintains constant pressure b) Maintains constant pH for enzymatic reactions c) Maintains osmotic pressure d) Increases conductivity	K2	CO3
4	7	Recall the phytosterol commonly found in plant oils. a) Cholesterol b) Testosterone c) Ergosterol d) Stigmasterol	K1	CO4
	8	Why carotenoids are considered as antioxidants? a) They increase acidity b) They form salts with metals c) They neutralize free radicals d) They decrease oxygen in food	K2	CO4
5	9	Show the composition of CNG. a) Ethane b) Propane c) Methane d) Butane	K1	CO5
	10	Why is Nylon called a synthetic polyamide? a) It contains ester linkages b) It contains amide linkages c) It contains ether linkages d) It contains alkyl groups only	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.	Interpret on Threshold vapour concentration and first aid procedure.	K2	CO1
		(OR)		
	11.b.	Discuss in brief about various Filtration techniques.		
2	12.a.	Restate the postulates of VSEPR theory.	K2	CO2
		(OR)		
	12.b.	Infer on electrovalent bond and covalent bond with examples.		
3	13.a.	Articulate the concept of ionic product of water and its significance.	K3	CO3
		(OR)		
	13.b.	Interpret on molarity, molality, normality, and mole fraction with examples.		
4	14.a.	Manipulate the occurrence and function of phytosterols.	K3	CO4
		(OR)		
	14.b.	Explain the functions of terpenoids in plants and food products.		
5	15.a.	Appraise on the properties and applications of nylon.	K4	CO5
		(OR)		
	15.b.	Distinguish between LDPE and HDPE plastics.		

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	Describe the methods of eliminating or minimizing errors and significance of statistical methods in identifying errors.	K2	CO1
2	17	Elaborate on Arrhenius, Bronsted–Lowry, and Lewis concepts of acids and bases with examples.	K2	CO2
3	18	Discover the applications of Faraday's laws in electroplating.	K3	CO3
4	19	Point out the methods used for extraction and identification of phytochemicals.	K4	CO4
5	20	Predict the applications of monomers and dimers in polymer industry.	K5	CO5