TOTAL PAGES : 2
22NDU104N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025
(First Semester)

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

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	Select the highly toxic chemical among the following a) DDT b) Ethanol c) Acetone d) Ether	K1	CO1
	2	___ Titration is an analytical chemistry method by which the composition of an unknown liquid sample can be determined. a) Volumetric b) Amperometric c) Iodometric d) Iodimetery	K2	CO1
2	3	Select any one from the following, in which the hydrogen bonds are present. a) NH_3 b) Proteins c) H_2O d) All the above	K1	CO2
	4	According to bronsted and lowry concept__ is a substance which donates a H^+ ion. a) Acid b) Base c) Water d) Chloroform	K2	CO2
3	5	Predict the element present in the structure of thiophene other than C and H a) S b) N c) O d) F	K2	CO3
	6	Find __is a nitrogen containing compound and it is essential for all the living organisms. a) Protein b) Amino acid c) Aldehyde d) Ketone	K1	CO3
4	7	What is the example for natural food colourings? a) Carotenoids b) Brilliant Blue c) Sunset Yellow d) Allura red	K1	CO4
	8	____ drug that is used to reduce anxiety, fear tension, agitation and related states of mental disturbance. a) Tranquilizers b) Antibiotics c) Antipyretics d) Analgesics	K2	CO4
5	9	Identify the volume % of the solution of 5 mL diluted to 100 mL of water a) 5% b) 10% c) 100% d) 20%		CO5
	10	____ is a process in which energy absorbed by a substance is released relatively slowly in the form of light. a) Fluorescence b) Phosphorescence c) Chemiluminescence d) Bioluminescence	K1	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.	Choose the correct and systematic procedures for the storage and handling of chemicals.	K3	CO1
		(OR)		
	11.b.	What are precision and accuracy with suitable examples.		
2	12.a.	Define the term oxidizing and reducing agents with suitable examples	K2	CO2
		(OR)		
	12.b.	Explain the lewis concept of acids and bases		
3	13.a.	Classify the heterocyclic compounds and explain the chemistry of pyridine.	K2	CO3
		(OR)		
	13.b.	Explain the characteristics properties of enzymes.		
4	14.a.	Organize the mode of action of sulphadiazine.	K3	CO4
		(OR)		
	14.b.	What is chemotherapy? And identify the requisites of dyes?		
5	15.a.	Simplify the term with their formula: a) Mass percentage b) Normality c. Mole fraction and d) Molarity	K4	CO5
		(OR)		
	15.b.	Analyse the process of photosensitization with suitable examples		

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	Use the Ostwald's theory and quinonoid theory to explain the colour change of the acid base indicators during the titration.	K3	CO1
2	17	Develop the characteristics of ionic compounds, covalent compounds and coordinate compounds	K3	CO2
3	18	Discuss the chemistry of furan and thiophene	K3	CO3
4	19	Define the following terms with suitable examples: (i) Analgesics (ii) Antipyretics (iii) Antibiotics	K3	CO4
5	20	Construct the Langmuir adsorption isotherm.	K3	CO5

Z-Z-Z END