Reg. No. | | | | | | | | |

G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.

UG DEGREE END SEMESTER EXAMINATIONS - APRIL 2025.

(For those admitted in June 2021 and later)

PROGRAMME AND BRANCH: B.Sc., CHEMISTRY

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
II	PART- III	CORE	U21CH204	ORGANIC CHEMISTRY- I

Date & Session: 24.04.2025/AN **Time: 3 hours** **Maximum: 75 Marks**

Course Outcome	Bloom's K-level	Q. No.	**SECTION – A (10 X 1 = 10 Marks)** **Answer ALL Questions.**
CO1	K1	1.	Write IUPAC name for $(CH_3)_2CHCH_2CH_2Br$ is. a) 1-bromo-3-methylbutane b) 1-bromo-2-methylbutane c) 3-bromo-1-methylbutane d) 2-bromo-1-methylbutane
CO1	K2	2.	Give the name of $CH_3CH(OH)CH_3$ a) 2-propanal. b) 2-propanol. c) 1-propanal. d) 1-propanol.
CO2	K1	3.	Which of the following exhibit +R effect? a) $-NO_2$ b) –CHO c) –OH d) –COOH
CO2	K2	4.	Which one is electrophile? a) Cl^- b) Br^- c) I^- d) SO_3
CO3	K1	5.	What is the class of the substitution product of $LiAlH_4$ and an alkyl halide reaction? a) Haloalkane b) Alkyl nitrite c) Nitroalkane d) Hydrocarbon
CO3	K2	6.	What is 3-Bromopropene's common name? a) Allyl bromide b) Vinyl bromide c) Tert-Butyl bromide d) Propylidene bromide
CO4	K1	7.	Dihydroxylation of alkenes with potassium permanganate (KMnO4) under basic and cold conditions results in a _____. a) Anti addition b) E1 Elimination c) syn addition d) E2 Elimination
CO4	K2	8.	The correct order of stability of dienes is. a) isolated > conjugated > cumulated b) conjugated > isolated > cumulated c) cumulated > conjugated > isolated d) cumulated > isolated > conjugated
CO5	K1	9.	What is the main explosive ingredient in dynamite? a) Nitrocellulose b) Nitroglycerin c) Toluene d) Benzene
CO5	K2	10.	The Zeisel method is a chemical procedure for determining _____. a) No of methyl group b) No of hydroxyl group c) No of methoxy group d) No of aldehyde group
Course Outcome	**Bloom's K-level**	**Q. No.**	**SECTION – B (5 X 5 = 25 Marks)** **Answer ALL Questions choosing either (a) or (b)**
CO1	K3	11a.	List the rules for naming carboxylic acid and acid anhydrides. **(OR)**
CO1	K3	11b.	Outline the IUPAC nomenclature for naming amines and nitro compounds.

CO2	K3	12a.	Explain inductive effects with examples. **(OR)**
CO2	K3	12b.	Discuss the types of bond cleavages.
CO3	K4	13a.	Compare E1 and E2 reactions. **(OR)**
CO3	K4	13b.	Analyse the various types of organic reactions.
CO4	K4	14a.	State and explain Markownikoff's rule for hydrocarbons. **(OR)**
CO4	K4	14b.	Discuss the mechanism of Diels Adler reaction.
CO5	K5	15a.	Illustrate the mechanism of dehydration of alcohols. **(OR)**
CO5	K5	15b.	Examine the preparation and uses of oxirane.

Course Outcome	**Bloom's K-level**	**Q. No.**	**SECTION – C (5 X 8 = 40 Marks)** **Answer ALL Questions choosing either (a) or (b)**
CO1	K3	16a.	Write the rule for naming of heterocyclic compounds containing one and two hetero atoms present in five and six membered rings with examples. **(OR)**
CO1	K3	16b.	Explain the structural isomerism with suitable examples.
CO2	K4	17a.	Examine the hyper conjugation effects and electromeric effect. **(OR)**
CO2	K4	17b.	Analyse the stability of radicals, carbocations and carbanions.
CO3	K4	18a.	Discuss the mechanism of SN1 reactions. **(OR)**
CO3	K4	18b.	Summarize the preparation and uses of westron.
CO4	K5	19a.	Describe the reactions of hydroboration, ozonolysis for unsaturated hydrocarbons. **(OR)**
CO4	K5	19b.	Classify the dienes.
CO5	K5	20a.	Distinction between primary, secondary and tertiary alcohols. **OR)**
CO5	K5	20b.	Distinction between ethers and alcohol.