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

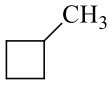
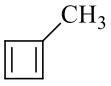
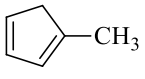
G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.

UG DEGREE END SEMESTER EXAMINATIONS - APRIL 2025.
(For those admitted in June 2021 and later)

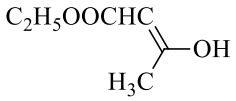
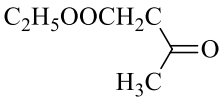
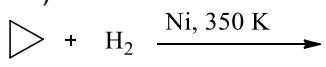
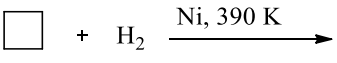
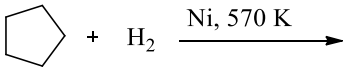
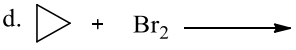
PROGRAMME AND BRANCH: B.Sc., CHEMISTRY

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
III	PART-III	CORE - 5	U21CH305	ORGANIC CHEMISTRY-II

Date & Session: 25.04.2025/FN **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.	Find the α, β-unsaturated carbonyl compound of the following. a) benzaldehyde b) acetaldehyde c) crotonaldehyde d) vanillin
CO1	K2	2.	Which product is formed when acetaldehyde addition with Grignard reagent followed by hydrolysis? a) primary alcohol b) secondary alcohol c) tertiary alcohol d) acid
CO2	K1	3.	Phthalic acid reacts with resorcinol in presence of Con. H_2SO_4 to give ---------- a) phenolphthalein b) fluorescein c) alizarin d) coumarin
CO2	K2	4.	Lacticacid when heated with iodine and caustic soda gives ---------- a) pyruvic acid b) iodoform c) acetaldehyde d) lactide
CO3	K1	5.	TEL is --------- a) tetraethyllithium b) tetraethyllead c) triethyllead d) triethyllithium
CO3	K2	6.	Mustard gas was used as a --------- a) war gas b) insecticide c) herrrbicide d) refrigerant
CO4	K1	7.	Choose the example of tautomerism. a) nitro-aci b) imine-enamine c) keto-enol d) all of these
CO4	K2	8.	Enol form of ethylacetoacetate reacts with $FeCl_3$ gives --------- color. a) green b) red c) yellow d) blue
CO5	K1	9.	Which is methylcyclobutane? a)  b)  c)  d) 
CO5	K2	10.	Which conformation structure of cyclohexane is more stable? a) boat form b) chair form c) half chair form d) twistboat form

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.	Give any two preparations of the following (2.5M Each). i) Chloral ii) succinaldehyde iii) Acrolein **(OR)**
CO1	K3	11b.	Explain about aldol condensation.
CO2	K3	12a.	Discuss the synthetic applications of the following (3+2 M) i) Urea ii) esters **(OR)**
CO2	K3	12b.	Manipulate the action of heat on acids and predict the products. (any 5 reactions)
CO3	K4	13a.	Distinguish between aldehydes ad ketones. **(OR)**
CO3	K4	13b.	Analyse the synthetic applications of Grignard reagent.
CO4	K4	14a.	Examine the keto-enol tautomerism. **(OR)**
CO4	K4	14b.	Categorize the tautomerism and explain any one.
CO5	K5	15a.	Illustrate Baeyer strain theory and the stability of cycloalkanes. **(OR)**
CO5	K5	15b.	Discuss the mechanism of Ester hydrolysis.

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.	Explain the mechanism of Wolff-Kishner reduction. **(OR)**
CO1	K3	16b.	Illustrate the uses of Urea, chloral, acrolein and hydroxyl acids.(each carry 2M).
CO2	K4	17a.	How will you prepare organometalic compounds? **(OR)**
CO2	K4	17b.	Distinguish the different types of acids. Discuss their preparation, properties and uses.
CO3	K4	18a.	Discuss the preparation of sulphonal and mustard gas. (4+4M). **(OR)**
CO3	K4	18b.	Analyze the synthetic application of some organo sulfur compounds.
CO4	K5	19a.	Deduce the IUPAC name of the below mentioned structures. i)  ii)  iii)  iv)  **(OR)**
CO4	K5	19b.	Interpret the isomerism existing in the following compounds and explain detail.  and 
CO5	K5	20a.	Predict the products of the following and give the name and structure. (2M Each) a.  b.  c.  d.  **(OR)**
CO5	K5	20b.	Explain the Synthesis of civetone.