







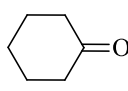


CO5	K1	9.	Which conformation of cyclohexane is more stable? a) boat form b) chair form c) half chair form d) twistboat form
CO5	K2	10.	Find the structure of cyclopentane. a)  b)  c)  d) 
Course Outcome	Bloom's K-level	Q. No.	SECTION - B (5 X 5 = 25 Marks) Answer ALL Questions choosing either (a) or (b)
CO1	K3	11a.	Elaborate the preparation of any two of the following (2.5M Each) i) Aldol ii) Crotonaldehyde iii) Acrolein
CO1	K3	11b.	(OR) Identify the oxidation products of the following (1+2+2 M) a. $\text{CCl}_3\text{CHO} \xrightarrow[\text{[O]}]{\text{HNO}_3}$ b. $\text{H}_2\text{C}=\text{CHCHO} \xrightarrow[\text{[O]}]{\text{Ammoniacal AgNO}_3}$ c. $\text{H}_2\text{CHC}=\text{CHCHO} \xrightarrow{\text{[O]}}$
CO2	K3	12a.	Complete the following, on action of heat (1M Each) a. $\begin{array}{c} \text{COOH} \\ \\ \text{H}_2\text{C} \\ \\ \text{COOH} \end{array} \xrightarrow{\Delta}$ d. $\begin{array}{c} \text{CH}_2\text{COOH} \\ \\ \text{CH}(\text{OH})\text{COOH} \end{array} \xrightarrow{\Delta}$ b. $\begin{array}{c} \text{COOH} \\ \\ \text{COOH} \end{array} \xrightarrow{\Delta}$ e. Urea $\xrightarrow{\Delta}$ c. $\begin{array}{c} \text{CH}_2\text{COOH} \\ \\ \text{CH}_2\text{COOH} \end{array} \xrightarrow{\Delta}$
CO2	K3	12b.	(OR) How will you utilise the following compounds to prepare urea? (any 2) (2.5M Each) i) ammonium cyanate ii) using NH_3 & CO_2 iii) using CaC_2 & N_2
CO3	K4	13a.	Examine the chemical properties of organozinc compounds. (OR)
CO3	K4	13b.	Compare the preparation and uses of thioalcohols and thioethers.
CO4	K4	14a.	Examine synthetic uses of ethylacetoacetate. (OR)
CO4	K4	14b.	Categorize tautomerism and explain any one.
CO5	K5	15a.	Deduce the IUPAC name of the below mentioned structures. i)  ii)  iii)  iv)  v) 
CO5	K5	15b.	(OR) Evaluate the Baeyer strain theory in order to the stability of cycloalkanes.

Course Outcome	Bloom's K-level	Q. No.	<p style="text-align: center;">SECTION – C (5 X 8 = 40 Marks) Answer ALL Questions choosing either (a) or (b)</p>
CO1	K3	16a.	Develop the following reactions: (2M Each) a) Clemmensen reduction b) Wolf- Kishner reduction c) Meerwin – Ponderf reduction d) Wittig reaction <p style="text-align: center;">(OR)</p>
CO1	K3	16b.	Identify the suitable reagent conditions for the following conversions. (2M Each) a. $\begin{matrix} R \\ \\ R-C-OH \\ \\ R \end{matrix} \xrightarrow{?} \begin{matrix} R \\ \\ R'-C=O \\ \\ R' \end{matrix} + H_2$ b. $CH_3COOH + HCOOH \xrightarrow{?} CH_3CHO + CO_2 + H_2O$ c. $CH_3COCl + H_2 \xrightarrow{?} CH_3CHO + HCl$ d. $HC\equiv CH + H_2O \xrightarrow{?} CH_3CHO$
CO2	K4	17a.	Distinguish the different types of acids and give one preparation and uses of each.
CO2	K4	17b.	Analyse the synthetic applications of the following (3+3+2 M) i) Urea ii) acetic anhydride iii) esters <p style="text-align: center;">(OR)</p>
CO3	K4	18a.	Clarify the preparation of sulphonal and mustard gas.(4+4M)
CO3	K4	18b.	Analyze the synthetic application of Grignard reagent.
CO4	K5	19a.	Justify your views on the reactivity of compounds having active methylene group.
CO4	K5	19b.	Interpret the following compound (ethylacetoacetate) with their chemical properties: $\begin{matrix} C_2H_5OOCHC \\ \\ H_3C \end{matrix} = \begin{matrix} OH \\ \end{matrix}$ and $\begin{matrix} C_2H_5OOCH_2C \\ \\ H_3C \end{matrix} = \begin{matrix} O \\ \end{matrix}$
CO5	K5	20a.	Assess the preparation of the following from its cycloalkanes.
CO5	K5	20b.	Predict the products of the following and give the name and structure. (2M Each) a. $\triangle + H_2 \xrightarrow{Ni, 350 K}$ b. $\square + H_2 \xrightarrow{Ni, 390 K}$ c. $\text{Cyclopentane} + H_2 \xrightarrow{Ni, 570 K}$ d. $\triangle + Br_2 \longrightarrow$