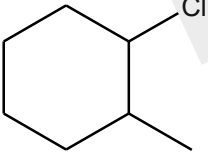
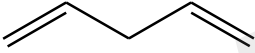
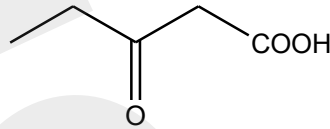

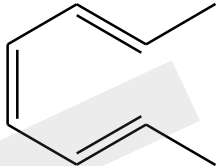


QP Code: D133773		Total Pages:2		Name:	
				Register No.	
<b>THIRD SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2025</b>					
(CUFYUGP)					
<b>CHE3CJ 202/CHE3MN 200-ORGANIC CHEMISTRY 1</b>					
<b>2024 Admission onwards</b>					
Maximum Time :2 Hours				Maximum Marks :70	
<b>Section A</b>					
<b>All Questions can be answered. Each Question carries 3 marks (Ceiling : 24 Marks)</b>					
1	Write IUPAC names of the following				
	a) 	b) 	c) 		
2	What is Ka and pKa? How is it related to strength of acids?				
3	State and explain Huckel's rule for aromaticity.				
4	Formic acid has higher pKa value than acetic acid Why?				
5	Distinguish between electrophiles and nucleophiles with examples.				
6	Draw the mesomeric structures of phenol.				
7	Analyze the relative stability of the phenoxide and carboxylate anions based on resonance and inductive effects. How does this influence the acidity of phenol versus a typical carboxylic acid? Justify your prediction with appropriate chemical reasoning.				
8	Draw the hyper conjugating structures of Toulene.				
9	Write IUPAC names of the following compounds with correct E-Z nomenclature				
	a) 	b) 			
10	What is the principle of steam distillation?				
<b>Section B</b>					
<b>All Questions can be answered. Each Question carries 6 marks (Ceiling : 36 Marks)</b>					
11	Describe the bonding in acetylene.				
12	Draw the Molecular orbitals of butadiene and mark HOMO and LUMO orbitals.				
13	Distinguish between intermolecular and intramolecular hydrogen bonding with suitable examples.				
14	Why chair conformation of cyclohexane is more stable than boat conformation?				
15	Explain the optical isomers of tartaric acid . Assign R and S configuration				
16	What is the preferred conformation of ter-butyl cyclohexane and why? Sketch the conformation.				

17	How sublimation is used to purify organic compounds?
18	Explain the working of TLC .
<b>Section C</b>	
<b>Answer any ONE .Each Question carries 10 marks (1x10=10 Marks)</b>	
19	Write an essay on formation, stability and structure of carbocations.
20	Explain the stability of all conformations of n-butane with a detailed energy diagram.