

QP Code: D133967		Total Pages: 1	Name:
			Register No.
<b>THIRD SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2025</b>			
(CUFYUGP)			
<b>CHE3MN 203-ORGANIC AND PHYTO CHEMISTRY</b>			
2024 Admission onwards			
Maximum Time :2 Hours			Maximum Marks :70
<b>Section A</b>			
All Questions can be answered. Each Question carries 3 marks (Ceiling : 24 Marks)			
1	Differentiate homolytic and heterolytic fission with suitable examples.		
2	Explain the use of curly arrows in reaction mechanisms. Illustrate with an example.		
3	Classify the following as electrophile, nucleophile, or free radical $\text{CH}_3^+$ , $\text{NH}_3$ , $\text{H}_2\text{O}$ , $\text{BF}_3$ , $\text{CN}^-$ , $\text{CH}_3\text{OH}$		
4	Define inductive effect. Distinguish between +I and -I groups with examples.		
5	Compare the pKa ( acid strength) of phenol, p-nitrophenol and p-methoxyphenol.		
6	What is Luca's test?		
7	How will you distinguish ethanol and methanol by iodoform test?		
8	What is rectified spirit? How is it obtained from wash?		
9	Explain the preparation of aldehydes from primary alcohols with an example.		
10	Describe the addition of HCN and sodium bisulphite to carbonyl compounds.		
<b>Section B</b>			
All Questions can be answered. Each Question carries 6 marks (Ceiling : 36 Marks)			
11	What is steric effect? How does it influence chemical reactivity?		
12	Define and give one example each of addition, elimination, substitution, rearrangement, and redox reactions.		
13	Draw the hyper conjugating structures of Toulene.		
14	Explain the preparation of amines by any two methods.		
15	Compare the basicity of ammonia, methylamine, and aniline, giving reasons.		
16	Write two synthetic applications of benzene diazonium chloride.		
17	Define the primary structure of a protein.		
18	State and explain isoprene rule.		
<b>Section C</b>			
Answer any ONE .Each Question carries 10 marks (1x10=10 Marks)			
19	Explain the following a) Dows process b) synthesis and uses of phenolphthalein.		
20	Write a note on classification of carbohydrates.		