Reg. No.

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



UG DEGREE END SEMESTER EXAMINATIONS - NOVEMBER 2024.

(For those admitted in June 2021 and later)

PROGRAMME AND BRANCH: B.Sc., CHEMISTRY

SEM	CA	ATEGO	RY	COMPONENT	COURSE CODE	COURSE TITLE	
II	P	ART –	III	CORE	U21CH204	ORGANIC CHEMISTRY I	
Date	& Sess	ion: 1	1.11.2024 / AN		Time : 3 hour	s Maximum: 75 Marks	
Course Outcome	Bloom's K-level	Q. No.	<u>SECTION – A (</u> 10 X 1 = 10 Marks) Answer <u>ALL</u> Questions.				
CO1	K1	1.	Identify the IUPAC name of Acetylsalicylic acida) 2-Acetoxy Benzoic acidb) 1-Acetoxy Benzoic acidc) 4-Acetoxy Benzoic acidd) 3-Acetoxy Benzoic acid				
CO1	K2	2.	Mention the priority list of functional groups. a) COOR>COCl>CONH ₂ > COOH >CHO b) C-C <cocl<c=c <cho<="" cooh<br="">c) CHO<cn< conh<sub="">2< COCl< COOH d) CHO>CN> CONH₂> COCl> COOH</cn<></cocl<c=c>				
CO2	K1	3.	Whic a) Al	h of the following Cl ₄ - b) B	is an electrophile Cl ₃ c) NH ₃	 d) CH ₃ OH	
CO2	K2	4.	Select the molecule that shows all the electromeric effects (namely inductive, mesomeric and hyperconjugation effect).a) CH3 - CH3b) CH3- CH=CH2c) CH3-CH=CHCOCH3d) CH2=CH-CH=CH2				
CO3	K1	5.	t-butyl alcohol on heating with Conc.H2SO4 gives isobutylene; This is an example fora) Elimination reaction c) Addition reactionb) Substitution reaction d) polymerization				
CO3	K2	6.	Choo a) N	ese the gas which the feon b)	used as coolant in re Westrosol c)	frigerator is/are Freon d) Westron	
CO4	K1	7.	Namo a) C	e the product form Cis-diol b) '	ned in Dihydroxylatio Trans-diol c) (on of alkenes with KMnO4 Cis- hexanol d) RS compound	
CO4	K2	8.	Write a) (the General form C_nH_{2n+2} b)	ula of Alkadienes. C_nH_{2n} c)	C_nH_{2n-1} d) C_nH_{2n-2}	
CO5	K1	9.	Addit a) Pri c) Te:	tion of Grignard re imary Alcohol rtiary Alcohol	eagent to Propanone b) d)	gives Secondary Alcohol all of them	
CO5	K2	10.	Indic a) Vii c) me	ate the product of nyl Chloride ethanol	Glycerol with formie b) d)	e acid on heating. Methoxy methane Allylic alcohol	

Course Outcome	Bloom's K-level	Q. No.	<u>SECTION – B (</u> 5 X 5 = 25 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K3	11a.	Write down the structure of the following compound.
			a) Neopentane b) 1,1-DichloroEthane c) Buta-1,3-diene
			d) 2,4-Dimethylhexanol e) 3-Bromo-2-methylpentanal
			(OR)
CO1	K3	11b.	Illustrate the rules in Naming of heterocyclic ring compounds.
CO2	K3	12a.	Interpret the Steric effect, Steric Overcrowding and inhibition.
			(OR)
CO2	КЗ	12b.	Identify Homolytic and Heterolytic fission with suitable examples.
CO3	K4	13a.	Discover Polymerisation reaction's types with suitable examples. (OR)
CO3	K4	13b.	How would you identify the major product in organic reactions by applying Hoffmann's and Saytzeffs rule?
CO4	K4	14a.	Depict Ozonolysis and allylic bromination by NBS.
CO4			(OR)
	K4	14b.	Define Diels-Alder reaction and express its mechanism with example.
CO5	K5	15a.	Deduce the preparation and uses of Dioxin and Oxirane.
			(OR)
CO5	K5	15b.	How can you measure the number of methoxy groups by Zeisel's method?

Course Outcome	Bloom's K-level	Q. No.	<u>SECTION – C (</u> 5 X 8 = 40 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K3	16a.	Classify organic compounds with examples.
CO1	КЗ	16b.	Define Structural isomerism and write any of its three types with examples.
CO2	K4	17a.	What are free radicals? Infer on their preparation, Structure and stability. (OR)
CO2	K4	17b.	Illustrate the types and application of Inductive effect.
CO3	K4	18a.	Elucidate the mechanism and the stereochemistry of SN ₂ Reaction. (OR)
CO3	K5	18b.	Comment on the preparations, properties and uses of CCl ₄ and Chloroprene.
CO4	K4	19a.	Analyse the addition reaction in unsymmetrical olefins by Markownikoff's rule and peroxide effect.
CO4	К5	19b.	Criticize the stability of conjugated dienes and Mechanism of 1, 2 and 1, 4- addition reaction.
CO5	K5	20a.	Prioritize any two methods of preparation for Primary and Secondary Alcohol.
CO5	K5	20b.	(OR) Predict the physical and chemical properties of Ethers and alcohols.