(6 pag	ges) R	eg. No. :		and	l eclipsed confo	mations	d
Code No.: 10007 E Sub. Code: SMCH 51			(a)	Newmann pro	jection		
			(b)	Sawhorse proj	ection		
B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2023.			(c)	Fischer project	tion		
	Fifth Se	emester		(d)	Wedge projecti	ion	
	Chemistr	ry – Core	3.	Tot	al mumbar of	conformations in ethane ar	6
	ORGANIC CHI	EMISTRY – III	J.	101	al number of	contormations in comme ar	
	(For those who joined	in July 2017 – 2019)		(a)	Infinity	(b) 2	
Time: Three hours Maximum: 75 marks			(c)	3	(d) 4		
PART A — $(10 \times 1 = 10 \text{ marks})$		4.			ring conformation of n-butane i	is	
	Answer ALI	questions.			least stable?		
	Choose the correct ans	wer:			Anti	(b) Eclipsed	
1.	Optically active isomers but not mirror images are			` '	Fully eclipsed	(d) None	
	called		5.			enzene is a	
(a) Enantiomers (b) Mesomers (c) Tautomers		The state of the s	. ,	Irreversible re			
		See all	(b)				
		4	(c)		tion		
(d) Diastereomers			(d)	None			
			1			Page 2 Code No.: 10007	E
			AÎ.				
					15. 8		
		THE PERSON NAMED IN				A second second second second second	
			1		DA DOLD		
-	Cine-subsitution is exp	plained by				$-(5 \times 5 = 25 \text{ marks})$	
	(a) SN ₁ mechanism	plained by			er ALL question	ns by choosing either (a) or (b).	
	(a) SN ₁ mechanism (b) SN ₂ mechanism			E	er ALL question ach answer sho	ns by choosing either (a) or (b). uld not exceed 250 words.	
	 (a) SN₁ mechanism (b) SN₂ mechanism (c) Benzyne mechanis 		11.	E	er ALL question ach answer sho	ns by choosing either (a) or (b). uld not exceed 250 words. enantiomers and diastereomers	
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(a) Give the preparation and uses of malachite green.

Or

(b) Explain the synthesis of naphthalene.

PART C - (5 × 8 = 40 marks)

Answer ALL questions by choosing either (a) or (b). Each answer should not exceed 600 words.

 (a) Discuss the sequence rules with example for D-L notation.

Or

- (b) Explain partial and absolute asymmetric synthesis.
- 17. (a) (i) Discuss the conformational analysis of propane.
 - (ii) Draw the energy diagramme for propane.
 - (iii) Draw the sawhorse representation for staggered and eclipsed forms of propane.

Or

(b) Discuss the conformational analysis of (i) 1,2-halohydrin (ii) 1, 2-glycol.

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18. (a) Discuss the consequences of aromaticity.

Or

- (b) Explain SN₁ and SN₂ mechanism for aromatic nucleophilic substitution.
- 19. (a) Compare the aromatic characters of thiophene, pyrrole and furan.

Or

- (b) Explain the mechanism of electrophilic substitution in Isoquinoline.
- 20. (a) Discuss briefly various theories of colour and chemical constitutes of dyes.

Or

(b) Discuss the structure of anthracene.

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