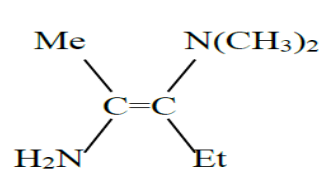
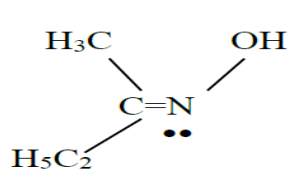
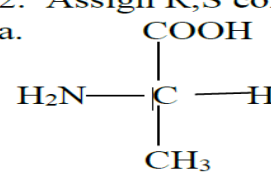
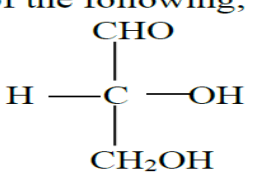


GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV(NEW) – EXAMINATION – SUMMER 2019
Subject Code:2143606
Date:25/05/2019
Subject Name: Advanced Organic Chemistry for Technologists
Time:02:30 PM TO 05:00 PM
Total Marks: 70
Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) Write short note on Saytzeff Rule.	03
	(b) Differentiate between Enantiomers and Diastereomers.	04
	(c) Define Aromaticity. Explain Huckel rule in detail showing the behavioural approach of different Organic molecules in proving their aromatic characteristics.	07
Q.2	(a) Show optical activity of Tartaric acid.	03
	(b) Explain Claisen - Dieckmann condensation in details.	04
	(c) Explain why, 1. Pyridine is more basic than pyrrole. 2. Pyridine is less basic than aliphatic amine. 3. Pyridine is more basic than aniline	07
	OR	
	(c) Explain detailed mechanism of MPV reduction.	07
Q.3	(a) Write a note on: Opposite behaviour of Halogen group.	03
	(b) Explain Hydroboration reaction with suitable examples.	04
	(c) Write detailed mechanism of SN1 & SN2 reactions with suitable examples.	07
	OR	
Q.3	(a) Explain why, Methyl (-CH ₃ group) acts as ortho-para director.	03
	(b) Discuss Pinacol-Pinacolone rearrangement in detail.	04
	(c) Write a note on NGP.	07
Q.4	(a) Explain detailed mechanism of Michael reaction.	03
	(b) Write down electrophilic substitution reaction of Pyrrole.	04
	(c) Explain detailed mechanism of Clemmensen reduction.	07
	OR	
Q.4	(a) Explain only mechanism of base catalyzed Gabriel synthesis.	03
	(b) 1. Assign E,Z notation to each of the following; a.  b. 	04
	2. Assign R,S configuration to each of the following; a.  b. 	

- (c) Write a note on aromaticity of Heterocyclic compounds. Also write Nitration, Sulphonation and Acylation reactions of Furan. **07**
- Q.5** (a) State major and minor products of addition reaction of But-1-ene and HBr. Give reactions and reasons. **03**
- (b) Enlist chemical reactions of Naphthalene. **04**
- (c) Write detailed mechanism and applications of Leuckart reaction. **07**
- OR**
- Q.5** (a) Write a short note on Geometrical Isomerism. **03**
- (b) Write a note on Benzidine rearrangement. **04**
- (c) Write detailed mechanism and applications of Knoevenagel condensation. **07**

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