Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM - SEMESTER– 3 EXAMINATION – WINTER -2019

Subject Code: 2230004 Date: 25-11-2019

Subject Name: Pharmaceutical Chemistry-IV (Organic Chemistry – I)

Time: 10:30AM TO 01:30PM Total Marks: 80

Instructions:

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

Q.1	**(a)**	Explain Different types of bond with example of each one.	**06**
	(b)	Define Carbocation. Write down the generation and reactions of Carbocation.	**05**
	(c)	Write a note on electronegativity and Polarity.	**05**
Q.2	**(a)**	Discuss in detail how Grignard reagent is helpful for synthesis of alcohol and alkanes.	**06**
	(b)	Write a descriptive note on Molecular Orbital Theory.	**05**
	(c)	How will you distinguish between primary, secondary and tertiary alcohol.	**05**
Q.3	**(a)**	Explain the Principle of Dumas Method and Kjeldahl method.	**06**
	(b)	Define Hybridization. Explain sp^2 hybridization in detail.	**05**
	(c)	Discus the chemical preparation and reactions of ether.	**05**
Q.4	**(a)**	Discuss the Haworth Synthesis of Anthracene.	**06**
	(b)	Explain halogenation of methane with its mechanism.	**05**
	(c)	Give two methods of preparation of alkene and alkyl halide.	**05**
Q.5	**(a)**	Give detailed notes on Aldol Condensation reaction with its mechanism.	**06**
	(b)	Write short note on Resonance.	**05**
	(c)	Write down in detail on Friedal Craft alkylation reaction in detail.	**05**
Q. 6	**(a)**	Write a note on determination of molecular weight of volatile substances.	**06**
	(b)	Discuss quantitative analysis of Nitrogen element.	**05**
	(c)	State Saytzeff's orientation and Kharash Peroxide effect with examples.	**05**
Q.7	**(a)**	Write down the methods of preparation and reactions of Diene.	**06**
	(b)	Write a note on Bonding and Anti-bonding orbitals.	**05**
	(c)	Explain the Intermolecular and Intramolecular forces.	**05**

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