Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Pharm . - SEMESTER– II • EXAMINATION – SUMMER -2020

Subject Code:BP202TP **Date: 27-10-2020**

Subject Name: Pharmaceutical organic chemistry- I

Time: 10:30 AM TO 1:30 PM **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)**	Write a note on Markovnikov's orientation.	**06**
	(b)	Draw the structure of following compounds, A. Chloral hydrate D. Citric acid B. Chlorobutanol E. Iodoform C. Vanillin F. Benzyl benzoate	**05**
	(c)	Differentiate: SN_1 and SN_2 reactions	**05**
Q.2	**(a)**	Write any three reactions of Amines.	**06**
	(b)	Write a note on Diels-alder reaction with examples.	**05**
	(c)	Discuss factor affecting E_1 reaction.	**05**
Q.3	**(a)**	Explain reaction with mechanism of Cannizaro reaction and Benzoin condensation.	**06**
	(b)	Write detail notes on carbocation.	**05**
	(c)	Give qualitative tests of ketones. Give structure and uses of acetone and hexamine.	**05**
Q.4	**(a)**	Explain reaction with mechanism of Aldol and crossed Aldol condensation.	**06**
	(b)	Explain chlorination of methane with mechanism in details.	**05**
	(c)	Give two methods for synthesis of alkyl halides.	**05**
Q.5	**(a)**	Write a note on acidity of carboxylic acids.	**06**
	(b)	Explain: SP hybridization in alkenes with examples.	**05**
	(c)	Give the reaction of following: 1. Ozonolysis 2. Perkin condensation	**05**
Q. 6	**(a)**	Write short notes on resonance and inductive effect.	**06**
	(b)	Give the preparation and reactions of conjugated dienes.	**05**
	(c)	Give structural formula of the following compounds: 1. Isopentene 2. 2, 3 diethyl -4- pentyne 3. 2,2,4,5 tetramethyl hexane 4. 2- methoxy pentane 5. 2, 3 dimethyl -3- hexene	**05**
Q.7	**(a)**	Give the reaction of following: 1. Allylic rearrangement 2. Electrophilic addition reaction of alkenes 3. Anti markownikoff's orientation	**06**
	(b)	Justify: 1. Lower alcohols are insoluble in water. 2. Primary carbocation is more stable than tertiary carbocation.	**05**
	(c)	How Grignard reagent prepared? Write synthetic utility of Grignard reagents.	**05**