Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM – SEMESTER – 2- EXAMINATION –WINTER - 2018

Subject Code:BP202TP **Date: 11/12/2018**

Subject Name: Pharmaceutical Organic Chemistry I

Time:02:30 PM TO 05:30 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)**	Give the structure and uses of the following (1) Paraldehyde (2) Salicylic acid (3) Cetosteryl alcohol (4) Vanilin (5) Chloral hydrate (6) Ethylenediamine	**06**
	(b)	Explain in detail about Grignard reaction for the synthesis of Alkanes and Alcohols.	**05**
	(c)	Write a note on Aldol condensation.	**05**
Q.2	**(a)**	What is isomer? Classify structural isomer with examples.	**06**
	(b)	Give three methods for synthesis of alkenes.	**05**
	(c)	Mention any three Nucleophilic addition reactions for aldehydes.	**05**
Q.3	**(a)**	Write a note on Benzoin condensation & Perkin condensation,	**06**
	(b)	Write the mechanism and limitations of Friedel-Crafts acylation of Ketones.	**05**
	(c)	Give the uses of paraffin. Discuss about stability of conjugated dienes.	**05**
Q.4	**(a)**	Give general method for preparation and reaction of aliphatic amines.	**06**
	(b)	Write short notes on SN2 reaction in detail.	**05**
	(c)	Differentiate between E2 and E1 mechanism of elimination with example.	**05**
Q.5	**(a)**	Differentiate Markownikoff's addition and Anti-markownikoff's addition to alkene.	**06**
	(b)	Describe the factors affecting the E1 and E2 reaction.	**05**
	(c)	Write name of qualitative tests for identification of carboxylic acid, ester, amide, alcohol and aliphatic amine.	**05**
Q. 6	**(a)**	Comment: (1) Order for basicity of amine is 2°>1°>3° in aqueous solution. (2) Carboxylic acid is less stable as compare to its anion form. (3) Bromination of alkane is more selective then chlorination.	**06**
	(b)	State the Saytzeff rule. What is pyrolysis? Give general reaction of pyrolysis for alkane.	**05**
	(c)	Write the structure and IUPAC name of followings: (1) Neopentane (2) Isopentane (3) Allylbromide (4) Isopropanol (5) Vinyl chloride	**05**
Q.7	**(a)**	Explain cannizzaro and cross cannizzaro reaction with mechanism.	**06**
	(b)	Write note on Diel-Alder reaction.	**05**
	(c)	Describe ozonolysis of alkene in detail.	**05**

****