Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM – SEMESTER – 3- EXAMINATION –WINTER - 2018

Subject Code: BP301TP **Date: 30/11/2018**

Subject Name: Pharmaceutical Organic Chemistry II

Time: 10:30 AM TO 01:30 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)**	How alcohols differ from phenol? Explain structure of benzene based on chemical properties.	**06**
	(b)	Explain this term "Aqueous solution of phenol is more acidic than alcohol "	**05**
	(c)	Notes on a) Aromatic amine is less basic than aliphatic amine and ammonia b) Cyclopropane is more prone to undergo ring opening reaction than cyclobutane.	**05**
Q.2	**(a)**	Explain hydrogenation of oil with diagram. Discuss significance and principal of acid value and saponification value.	**06**
	(b)	What is the proof for the presence of two fused rings in naphthalene? Explain about Haworth synthesis.	**05**
	(c)	Notes on inductive group and its directing effect in monosubstituated benzene.	**05**
Q.3	**(a)**	Write down sulphonation, Friedel-Crafts acylation, reduction and oxidation reaction of naphthalene.	**06**
	(b)	Explain effect of substituents on acidity of phenol.	**05**
	(c)	Notes on structure and stability of benzene.	**05**
Q.4	**(a)**	What are synthetic uses of aryl diazonium salts?	**06**
	(b)	Discuss Baeyer strain theory using concept of angle strain. Limitation of Baeyer strain theory.	**05**
	(c)	Notes on a) Why is chair conformation of cyclohexane more stable than boat Form b) Theory of strainless rings.	**05**
Q.5	**(a)**	Explant Haworth synthesis for anthracene. Explain chemical reaction involve in anthracene.	**06**
	(b)	Write down structure and uses of DDT, BHC and Chloramine.	**05**
	(c)	Explain briefly about electrophilic substitution reaction of benzene.	**05**
Q. 6	**(a)**	How will you convert phenol in to (a) Benzene (b) Phenyl acetate (c) Anisole (d) Phenetole (e) Salicylaldehyde (f) P- Hydroxyazobenzene	**06**
	(b)	Explain effect of substituents on acidity of Aromatic acids.	**05**
	(c)	Write down structure and uses of phenol, cresol and resorcinol.	**05**
Q.7	**(a)**	What is aromaticity? Write down characteristic in aromatic benzene. Write down method of preparation of benzene.	**06**
	(b)	How can you prepare phenol by Dow and Cumene process?	**05**
	(c)	Write down reaction involve in Cyclopropane and cyclobutane.	**05**

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