

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.**

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|-------------|------------|--|-----------|
| 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 | 05 |
| | | a) Aromatic amine is less basic than aliphatic amine and ammonia
b) Cyclopropane is more prone to undergo ring opening reaction than cyclobutane. | |
| 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 monosubstituted 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) | Explain 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 |
