

GUJARAT TECHNOLOGICAL UNIVERSITY
B. PHARM. - SEMESTER – IV • EXAMINATION – WINTER 2012

Subject code: 240003**Date: 29/12/2012****Subject Name: Pharmaceutical Chemistry-IV****Time: 02.30 pm - 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) Explain stereoselective and stereospecific reactions giving examples. **06**
(b) Give brief account on stereochemistry of biphenyls. **05**
(c) Explain the terms: (i) Conformation (ii) Racemic mixture. **05**
- Q.2** (a) Comment on statement- Benzene is not cyclohexatriene. **06**
(b) Give brief account on application of microwave in chemistry. **05**
(c) What is benzyne? Explain its generation? **05**
- Q.3** (a) Write short note on Perkin reaction. **06**
(b) What are arenes? Give two methods for preparation of arenes. **05**
(c) What is aromatic character? Explain with suitable examples. **05**
- Q.4** (a) Give preparation and reaction of diazonium salt. **06**
(b) Give preparation and use of Tollens' reagent. **05**
(c) Write short note on reaction which involves the reaction of 2-molecule of aldehyde or ketone to give β -hydroxy aldehyde or β -hydroxy ketone. **05**
- Q.5** (a) What do you mean by Green Chemistry? How it helps to decrease pollution? **06**
(b) Explain with example (i) Geometric isomerism (ii) poly nuclear aromatic compounds **05**
(c) Discuss the mechanism of cumene process for phenol synthesis. **05**
- Q.6** (a) Give mechanism and limitations of Friedel-Crafts alkylation. **06**
(b) Discuss the preparation of salicylaldehyde from phenol. **05**
(c) Write note on preparation methods of aldehydes. **05**
- Q.7** (a) Give reactions of carboxylic acids. **06**
(b) Write brief note on Hofmann degradation of amides. **05**
(c) Explain the role of reagents. **05**
(i) FeCl_3 in halogenation of benzene
(ii) H_2SO_4 in nitration of benzene
