$|\,\mathbf{R10}\,|$ 

## I B.Pharmacy I Semester Supplementary Examinations, Feb/Mar 2014

PHARM ORGANIC CHEMISTRY -I
Time: 3 hours

Max Marks: 75

## Answer any FIVE Questions All Questions carry equal marks

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- 1. (a) Classify different types of organic reagents. Explain in brief Electrophilic reagents with examples. How do they attack the substrate?
  - (b) What are nucleophilic reagents? Classify with examples. How nucleophiles attack the substrate? [8+7]
- 2. (a) Explain relative stabilities, heat of combustion and hydrogenation.
  - (b) What are cycloalkanes? Discuss Bayer's strain theory to explain the stability of cycloalkanes. [8+7]
- 3. (a) Write a note on Kharasch effect.

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- (b) Explain Bayer's oxidation of alkenes.
- (c) Discuss the polymerization of alkenes with example.

[5+5+5]

- 4. (a) Explain the statement "Benzene undergoes Electrophilic Aromatic Substitution Reactions"
  - (b) Write short notes on Activating and Deactivating Groups in Electrophilic Aromatic Substitution Reactions of Substituted Benzene [8+7]
- 5. (a) What are Aromatic compounds? Explain the Structure of Benzene
  - (b) Write short notes on (i) Huckel's Rule (ii) Stability of Benzene [5+10]
- 6. Write reaction mechanism, kinetics, energetics, stereochemistry and factors influencing  $SN^2$  Mechanism? Add anote on Walden Inversion? [15]
- 7. (a) Write Haworth synthesis of Naphthalene and describe Reaction Mechanism involved in it?
  - (b) What happens when Anthracene is subjected for Reduction with
    - (i)Sodium metal in Ethanol
    - (ii) Hydrogen in presence of Nickel catalyst

[8+7]

- 8. (a) What are Aryl halides and give examples? Explain why Aryl halides are less reactive than Alkyl halides towards Nucleophilic Substitution Reactions?
  - (b) Describe any Three important Methods of Preparation of Aryl halides with suitable Examples? [8+7]

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