PY - 203

B.Pharmacy II Semester

Examination, June 2015

Pharmaceutical Chemistry-III

(Organic-I)

Time : Three Hours

Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each questions are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

1. a) Explain Electronegativity in brief.

   b) Write in brief about Nitrene.

   c) Write a note on hybridization with suitable examples.

   d) What is optical activity? Describe R and S configuration with its sequence rules.

   OR

   What are carbocations? Explain its stability and reactivity with suitable examples.

2. a) Define Chirality and racemic modification.

   b) State and explain : Markovnikov's rule.

   c) Write a note on halogenations of Alkanes.

   d) Give general methods for the preparation of Alkyne and Alkene.

 OR

Discuss the orientation and reactivity of Nucleophilic Aromatic substitution.

3. a) Explain in brief Aldol condensation.

   b) Explain dehydration of alcohol.

   c) Give methods of preparations of Phenols.

   d) Discuss SN1 and SN2 reactions of alkyl halides.

   OR

   What is aromaticity? Explain aromatic character of benzene and naphthalene.

4. a) Give any two chemical properties of aldehyde.

   b) Give any two method of preparation of carboxylic acid.

   c) Write a short note on Williamson's synthesis.

   d) Discuss with suitable examples nucleophilic addition reaction of carbonyl compounds.

   OR

   Compare E1 and E2 mechanism in detail.

5. a) Discuss basic character of amines.

   b) What are Dienes?

   c) How will you differentia primary, secondary and tertiary amines?

   d) Describe preparation and synthetic utility of diazonium salts.

   OR

   Enumerate various derivatives of carboxylic acids. Compare their reactivity.