

**PY-114****B.Pharmacy, II Semester (Non-PCI Scheme)**

Examination, June 2017

**Choice Based Credit System (CBCS)****Pharmaceutical Chemistry - II****(Organic Chemistry - I)***Time : Three Hours**Maximum Marks: 60*

- Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.

- Classify organic reactions giving examples.
  - Exemplify electrophiles and nucleophiles.
  - Define aromaticity and discuss conditions for aromaticity.
- What are carbenes and nitrenes? How are they prepared? Discuss their synthetic utility.
  - Explain generation of free radicals. Discuss their stability and reactions.
- Define relative and absolute configuration giving examples.
  - Discuss Cahn Ingold prelog system of nomenclature.
- Define enantiomers and diastereomers. Differentiate between them giving examples.
  - What do you understand by the term asymmetric synthesis? Discuss partial and absolute asymmetric synthesis.

- Explain how phenols are more acidic than alcohols and exhibit entirely different chemical reactivity than alcohols. Support your answer with suitable examples.
  - What are carbonyl compounds? Discuss nucleophilic addition reactions exhibited by them.
- Discuss synthesis and nucleophilic substitution reactions of esters and amides.
  - Explain role of solvent in  $S_N1$  Vs  $S_N2$  reactions.
- Exemplify E1 and E2 reactions. Discuss conditions for substitution Vs elimination reactions.
  - Discuss generation of carbocations and carbanions and their stability.
- Explain reactions involving carbanions.
  - Show how ethers differ from alcohols in their physical and chemical properties.

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