

**BP-202 T****B.Pharm., II Semester (PCI Scheme)**

Examination, June 2017

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

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

1. a) Classify organic compounds giving examples.  
b) Discuss common and IUPAC system of Nomenclature in aliphatic and aromatic carboxylic acids.
2. a) Write a note on structural isomerism in organic compounds giving suitable examples.  
b) Discuss  $Sp^3$  and  $Sp^2$  hybridization in alkanes and alkenes and its impact.
3. a) Discuss reaction mechanism of free radical substitution in alkanes.  
b) Give laboratory method of preparation of alkanes and alkenes.

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4. a) Discuss free radical and electrophilic addition reactions of conjugated dienes.  
b) Explain Markovnikov's and Anti-Markovnikov's orientation in addition reactions in alkenes.
5. a) Discuss  $S_N1$  Vs  $S_N2$  reactions in alkyl halides and stereochemistry involved.  
b) Give qualitative tests, structures and uses of glycerol, cetostearyl alcohol and propylene glycol.
6. a) Give laboratory method of preparation of aldehydes and ketones. Discuss their nucleophilic addition reactions.  
b) Discuss basicity and effect of substituents on basicity of amines.
7. a) Explain effect of substituents on acidity of carboxylic acids. Give qualitative tests for carboxylic acids, amides and esters.  
b) Write structures and uses of salicylic acid, benzyl benzoate, methyl salicylate and acetyl salicylic acid.

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