

**Subject Code: B13106/R13**

**I B. Pharmacy I Semester Supplementary Examinations, May - 2017**

**PHARMACEUTICAL ORGANIC CHEMISTRY-I**

**Time: 3Hours**

**Max Marks: 70**

Question Paper Consists of **Part-A** and **Part-B**  
 Answering the question in **Part-A** is Compulsory,  
 Three Questions should be answered from **Part-B**

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**PART-A**

1. (a) Explain the formation and stability of free radicals.  
 (b) Write the nomenclature and any two methods of preparation of alkenes.  
 (c) Write note on Hoffmann orientation.  
 (d) Mention any two methods of preparation of Grignard reagent.  
 (e) Brief about Williamsons synthesis of ethers.  
 (f) What is Geometric isomerism? [4+4+3+4+3+4]

**PART-B**

2. (a) Explain the electronic effects and hyperconjugation with their importance of organic molecules.  
 (b) Give a short note on carbocations. [10+6]
3. (a) What is  $S_N1$  &  $S_N2$  reaction? Explain the mechanism with a suitable example.  
 (b) Explain the following.  
 (i) allylic substitution (ii) Elimination reactions by E1 mechanism [10+6]
4. (a) What are alcohols? Classify them. Outline the nomenclature, method of preparation and chemical reactions of alcohols.  
 (b) Write a brief note on iodoform reaction and Lucas test. [9+7]
5. (a) Explain configuration with suitable examples. Write in brief about stereo isomers and optical isomers.  
 (b) What is racemic mixture? Explain different types of racemic mixtures. Enlist different methods of resolution of racemic modifications. [8+8]
6. (a) Explain why alkyl halides undergo nucleophilic aliphatic substitution reactions?  
 (b) Explain nucleophilic aliphatic substitution reactions of alkyl halides for preparation of Organic compounds. [8+8]
7. (a) How to prepare Grignard reagent? Write any three synthetic applications of Grignard reagent.  
 (b) Enumerate the applications and substitution reactions by using Grignard reagent in organic synthesis. [8+8]

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