Code No: B13106 **R13** SET - 1

I B. Pharmacy I Semester Supplementary Examinations, Jan/Feb - 2018
PHARMACEUTICAL ORGANIC CHEMISTRY-I

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B)**
2. Answering the questions in **Part-A** is Compulsory
3. Answer any **THREE** Questions from **Part-B**

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PART –A

1. a) Write in brief on hyperconjugation. (4M)
   b) Write short notes on Sachse-Mohr theory. (4M)
   c) Alkynes are acidic. Why? (3M)
   d) What is Saytzeff's rule? (3M)
   e) Write in brief on racemic mixture. (4M)
   f) Write all possible stereoisomers for tartaric acid. (4M)

PART -B

2. a) Write in detail on inductive effect and resonance. (8M)
   b) Write short notes on formation and stability of carbocations. (8M)

3. a) What are cycloalkanes? Write three methods for preparation of cycloalkanes. Add a note on conformations of cyclohexane. (8M)
   b) Explain the mechanism and synthetic applications of ozonolysis. (8M)

4. a) What are nucleophiles? Write in brief on factors influencing ability of a nucleophile to undergo substitution. (8M)
   b) Write in detail on stereo-chemical implications of SN2 reactions. (8M)

5. a) Write three methods of preparation and reactions of ethers. (10M)
   b) Write in detail on methods used for qualitative and quantitative analysis of alcohols. (6M)

6. a) What is stereoisomerism? Differentiate optical and geometric isomerism. Add a note on significance of optical isomerism in pharmaceutical chemistry. (10M)
   b) Write short notes on Fisher projection formula. (6M)

7. How can you achieve the following synthetic conversions?
   a) Propylene to acetone. (5M)
   b) Chloroform to chlorobutanol. (5M)
   c) Acetaldehyde to hexane-3-ol. (6M)
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