

I B. Pharmacy I Semester Supplementary Examinations, February - 2019
PHARMACEUTICAL ORGANIC CHEMISTRY-I

Time: 3 hours

Max. Marks: 70

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

1. a) What is a covalent bond? Give examples. (2M)
- b) Write tests for identification of unsaturation in organic compounds. (2M)
- c) What is Lucas test? (2M)
- d) Write structures of (i) ethyl isopropylether (ii) t-butanol (2M)
- e) What is a chiral carbon? Give example. (2M)
- f) Why $-C\equiv CH$ is acidic? (2M)
- g) What are geometric isomers? (2M)

PART -B

2. Write in detail on (14M)
 a) Inductive effect b) Resonance
3. a) What are carbocations? Write methods used for their preparation. (6M)
 b) Explain the factors influencing stability and reactivity of carbocations. (8M)
4. a) Write in detail on Markovnikov's rule. (6M)
 b) Discuss the reactivity of butadiene. (8M)
5. a) Write methods used for preparation of alkyl halides. (8M)
 b) Write the mechanisms and significance of E1 reactions. (6M)
6. a) Classify alcohols with examples. Write a note on industrial production of ethanol. (8M)
 b) Explain the mechanism and synthetic applications of Williamson's synthesis. (6M)
7. a) Differentiate optical and geometric isomers. Add a note on relative configuration. (6M)
 b) Enumerate methods used for resolution of a racemic mixture. (8M)