

**I B.Pharmacy I Semester Supplementary Examinations, February - 2019****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**

**PART -A**

1. a) Write short notes on hydrogen bond. (4M)
- b) Write all possible conformations of cyclopentane and comment on their stability. (4M)
- c) Write in brief on Saytzeff's rule. (3M)
- d) Write chemical methods used for resolution of resolution of a racemic mixture. (4M)
- e) Write structures of (i) (E)-2-methylpent-3-en-1-ol (ii) 2-ethoxypropane. (3M)
- f) Write characteristics of optical isomerism. (4M)

**PART -B**

2. a) Write methods of preparation of free radicals. Add note on its stability. (8M)
- b) Write in detail on Inductive effect. (8M)
3. a) Classify alkenes with examples. Write three methods for preparation of alkenes. (10M)
- b) Discuss the mechanism and applications of ozonolysis. (6M)
4. a) Write in detail on the mechanism and significance of E1 reactions. (8M)
- b) Write in detail on preparation of alkyl halides. (8M)
5. a) Classify alcohols with examples. Write identification tests for -OH group. (8M)
- b) Discuss the methods used for hydrolysis of ethers. (8M)
6. a) Write in detail on R and S configuration. (10M)
- b) Write in brief on Grignard reagent preparation and storage. (6M)
7. Write reasons for the following.
  - a) Isopropyl alcohol is more reactive towards Lucas test than propanol. (4M)
  - b) But-1-ene gives positive reaction in Bayers test and Bromine water test. (4M)
  - c) Addition of water molecule to Acetylene results in acetone. (4M)
  - d) Tertiary carbocations are more stable than primary. (4M)