

Code No: B13106

**R13****SET - 1****I B. Pharmacy I Semester Supplementary Examinations, February - 2020****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) Discuss the role of electronegativity in polarity of a chemical bond. (4M)
- b) Why do conjugated dienes show more stability than unconjugated dienes? (4M)
- c) Write two methods used for preparation of alkyl halides. (4M)
- d) Write mechanism and applications of Lucas test. (3M)
- e) Write in brief note on fisher projection formula. (4M)
- f) Write structures of the following: (3M)  
(a) 5-bromo-3-methylpentan-2-ol      (b) (E)-1-bromobut-2-ene-1,4-diol

**PART -B**

2. Write in detail on (16M)  
(a) Inductive effect      (b) Mesomeric effect      (c) Stability of free radicals
3. a) Write methods used for preparation of cycloalkanes. (8M)
- b) Write in detail on ring strain and its role in drug activity. (8M)
4. a) With a neat sketch explain the mechanism involved in  $S_N^1$  reaction. Add a note on factors influencing nucleophilic substitution reactions. (10M)
- b) Write short note on Hoffman's elimination. (6M)
5. a) Write methods used for industrial production of ethanol. (8M)
- b) Write the addition reactions of Grignard reagent. (8M)
6. a) How do you determine symmetry in a molecule? (6M)
- b) Write in detail on resolution of racemic mixture. (10M)
7. Write reasons for the following: (16M)  
(a) Alkenes decolorize Bayer's reagent  
(b) Conformational isomerism is possible only across C-C.  
(c) Free radicals are highly reactive  
(d) Stereoisomers differ in their biological activity