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 SN^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
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