

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

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions
All Questions carry **Equal** Marks

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1. a) With a neat sketch explain the concept of resonance. (8M)  
b) Write short notes on carbocations. (7M)
2. Write reasons for the following.
  - a) Alkanes are lipophilic. (4M)
  - b) Benzene does not decolorize bromine water. (4M)
  - c) C-F is more polar than C-Cl bond. (3M)
  - d) Alkynes are acidic. (4M)
3. a) With a neat sketch explain the electronic structure of benzene. (8M)  
b) Write mechanism, reaction conditions and synthetic applicability of friedel crafts acylation. (7M)
4. a) Describe the structure and aromaticity of naphthalene. (6M)  
b) Write in detail on electrophilic substitution reactions of naphthalene. (9M)
5. Write in detail on
  - a) Hyperconjugation. (8M)
  - b) Inductive effect. (7M)
6. How do you achieve the following synthetic conversions?
  - a) Aniline to p-bromoaniline. (5M)
  - b) Phthalic anhydride from naphthalene. (5M)
  - c) Methane to chloroform. (5M)
7. a) Write the mechanism and orientation of E1 reactions. (8M)  
b) Write short notes on Saytzeff's rule. (7M)
8. a) Write three methods for preparation of alkyl halides. (8M)  
b) With an example, explain why benzene does not undergo nucleophilic substitution reactions easily? (7M)