

**First Year B.Pharm Degree Supplementary Examinations  
December 2017  
PHARMACEUTICAL CHEMISTRY - II  
(Organic Chemistry)**

**(2010 - Scheme)**

**Time: 3 Hours****Total Marks: 100**

- Answer all Questions.
- Write equations wherever necessary.

**Essay****(3x10=30)**

1. Discuss in detail inductive effect and mesomeric effect. Cite appropriate examples.
2. Nucleophilic substitution reaction in alkyl halide.
3. Explain in detail the nucleophilic addition reactions of carbonyl compounds.

**Short notes****(14x5=70)**

4. Carbocation and its stability.
5. Give one method of preparation for alkanes from alkyl halide and ketone.
6. Electrophilic addition of alkyl halide in alkenes
7. Boiling point of alcohols are higher than their paraffin counterparts (eg. ethanol and ethane). Explain why.
8. Oxidation of 1°, 2° and 3° alcohols.
9. Explain the Williamson's synthesis of ethers with reactions.
10. Mechanism of Cannizzaro reaction.
11. Preparation of ethyl acetoacetate and its significance in organic chemistry.
12. Preparation of amines from alkyl halides.
13. Ziesel's method with reference to ethers.
14. Explain in detail the reaction of methyl magnesium bromide with formaldehyde, acetaldehyde and acetone
15. 1°, 2° and 3° alcohols from carbonyl compounds using Grignard reagent.
16. Fries rearrangement: mechanism.
17. Discuss any two methods for the preparation of the following: phenol & benzoic acid.

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