

**First Year B.Pharm Degree Supplementary Examinations June 2019**

**Pharmaceutical Chemistry - II**

**(Organic Chemistry)**

**(2012 Scheme)**

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

- Answer all Questions.
- Write equations wherever necessary.

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

1. Explain Bayer's strain theory and its limitations. Add a note on stability of cyclohexane with the help of Sachse Mohr theory.
2. Give the reaction and mechanism involved in Reformatsky reaction and oppenauer oxidation.
3. Explain the mechanism of  $SN_1$  &  $SN_2$  reactions.

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

4. Define and give the mechanism involved in Markovnikov's rule.
5. Classification and general method of preparations of alcohols.
6. Explain Fries rearrangement reaction.
7. What is a diazotization reaction. Give the reactions of diazonium salts
8. Give the nomenclature rules and classification of amines. Discuss their basicity.
9. Discuss the formation of acid chlorides, esters and amides.
10. Explain the concept of resonance and hyper conjugation.
11. Give the nitration and sulphonation reactions of benzene.
12. Give two reactions of aromatic nitro compounds and the acidity of nitro compounds.
13. Explain the halogenation reaction of alkanes.
14. Give the 1, 4 addition reaction of conjugated alkadienes.
15. Explain different types hybridizations with examples.
16. Give examples of addition reactions in alkenes. Add a note on its hydroxylation.
17. Explain the low reactivity of carbonyl compounds towards the nucleophilic addition.

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