

**First Year B.Pharm Degree Supplementary Examinations October 2018**

**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 hyperconjugation. Cite appropriate examples.
2. Explain the stability of the cyclo-alkanes with reference to Bayer's strain theory.
3. Give an account of electrophilic substitution reaction in benzene and discuss in detail the reactivity and orientation of monosubstituted benzenes

**Short notes**

**(14x5=70)**

4. Transition state in organic reactions.
5. Free radical mediated reaction in alkanes.
6. Polymerization reactions in alkenes.
7. Walden inversion.
8. Dehydration of 1°, 2° and 3° alcohols.
9. Nucleophilic addition reaction of aldehydes.
10. Mechanism of aldol condensation.
11. Preparation of malonic ester and its significance in organic chemistry.
12. Differentiating 1°, 2° and 3° amines
13. Diazotization reaction: mechanism.
14. How will you prepare 1°, 2° and 3° alcohols from carbonyl compounds using Grignard reagent.
15. Markovnikov's rule and anti-markovnikov's rule.
16. Discuss any two method for the preparation of the following: phenol & aniline.
17. Resonance

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