

**QP CODE: 4326**

**Reg. No:.....**

First Year Pharm D Degree Supplementary Examinations - April 2012

**Pharmaceutical Organic Chemistry**

**Time: 3 Hours**

**Total Marks: 70**

- **Answer all questions**
- **Write equations, draw diagrams wherever necessary**

**Essays:**

**(2x10=20)**

1. Discuss the electrophilic substitution reaction in aromatic system. Explain mechanism of their reaction
2. Explain the following reaction with mechanism and synthetic tool
  - Aldol condensation
  - Reimer Tiemanns reactions
  - Williamson synthesis

**Short notes:**

**(10x3=30)**

3. Explain the mechanism of free radical chain reaction of alkanes with example
4. Explain the acidity of carboxylic acids
5. Write the preparation assay and uses of dimethyl phthalate
6. Write short notes on Markownikoff rule
7. Write short notes on conjugated dienes
8. Explain benzoin condensation with example
9. Discuss the mechanism of nucleophilic acyl substitution reaction
10. Write short notes on effect of substitution on acidity of phenols.
11. Explain the mechanism of free radical addition reaction
12. Give an example for aliphatic secondary amine. Write its IUPAC name.

**Answer briefly**

**(10x2=20)**

13. Define and classify carboxylic acids.
14. Write the structure of neopentane and give its IUPAC name.
15. Write the structure and uses of paraldehyde
16. Define tautomerism
17. Define hyper conjugation
18. Define polarity
19. Inter molecular forces
20. Preparation and test for purity of saccharin sodium
21. Elimination versus substitution
22. Assay of aspirin

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