

QP. CODE: 1206

Reg. No: .....

First Year B. Pharm Degree Supplementary Examinations, April 2012

**Pharmaceutical Chemistry - II**

**(Organic Chemistry)**

Time: 3 Hrs

Max. Marks: 100

- Answer all questions
- Write equation wherever necessary

**Essay:**

**(2x10=20)**

1. Explain electrophilic addition reactions of alkenes with any two examples.
2. Write the mechanisms involved in Kolbe-Schmidt reaction and Cannizzaro reaction.

**Short notes:**

**(10x5=50)**

3. Describe the synthesis of carboxylic acids and phenols from diazonium salts with examples.
4. Explain the aldol and crossed aldol condensation reaction.
5. Describe the Fries rearrangement and its mechanism.
6. Comment on the basicity of amines.
7. Explain the effect of halogen on electrophilic aromatic substitution.
8. Explain the Bayer's strain theory.
9. Explain the acidity of carboxylic acid in terms of its resonance stabilized anions to that of alcohol.
10. Explain why aryl halides are more reactive than alkyl halides towards nucleophilic substitution reaction.
11. What is Walden inversion.
12. Describe the functional reactions of nitriles.

**Answer briefly:**

**(10 x 3 = 30)**

13. What is mesomeric effect.
14. What are the various types of isomerism in alkanes.
15. What are the ring activators and deactivators
16. Write a note on hydrogen bonding in alcohols and its influence on physical properties.
17. Explain Williamson's ether synthesis.
18. Write about the acidity of nitro compounds.
19. Classify amines with relevant examples.
20. What are free radicals. Give example for any one reaction of free radicals.
21. Explain hyperconjugation with suitable examples.
22. Write the structure and IUPAC name of any three carboxylic acids.