QP CODE:1206 **Reg.No:.....**

FIRST YEAR B.PHARM DEGREE MODEL EXAMINATION, JULY 2011

PHARMACEUTICAL CHEMISTRY - Paper-II

(Organic Chemistry)

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

- *Answer all questions*
- *Write equations wherever necessary*

Essay **(2x10=20 marks)**

1. Discuss in detail the theory of reactivity and orientation of electrophilic aromatic substitution reaction in benzene.
2. Using examples, illustrate the use of Benzene diazonium salts as potent synthetic tools.

Write short notes on **(10x5=50 marks)**

3. Explain Hinsberg test.
4. Comment on the acidity of terminal alkynes.
5. Give the mechanism of Nucleophilic substitution reaction of alkyl halide.
6. How will you differentiate primary, secondary and tertiary alcohols?
7. What is inductive effect?
8. What is aromaticity?
9. Alkyl halides are very good substrates for nucleophilic substitution reactions. Explain.
10. Give the molecular orbital picture of Benzene.
11. What is Kharasch effect?
12. State and explain Markovnikov's rule.

Answer Briefly **(10x3=30 marks)**

13. Why chlorination of methane takes place at elevated temperature, though it is an exothermic Reaction?
14. Why it is not possible to prepare alkanes having odd number of carbon atoms using Wurtz Reaction?
15. The presence of a little amount of oxygen retards chlorination of methane. Why?
16. Tertiary alcohols can be easily dehydrated than primary alcohols. Why?
17. What happens when Sodium acetate is heated strongly with sodalime in a dry testtube?
18. What happens when a gaseous mixture of methane and fluorine in a glass bulb is shown to sunlight?
19. Why aryl halides are less reactive than alkyl halides?
20. What is aldol condensation?
21. What is Fries rearrangement?
22. What is Hofmann elimination?

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