2012 Scheme

QP CODE: 112006   Reg. No: ……………………..

First Year B. Pharm Degree Supplementary Examinations June 2023

Pharmaceutical Chemistry - II

(Organic Chemistry)

Time: 3 Hours   Total Marks: 100

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Write equations wherever necessary.*

Essay   (3x10=30)

1. With the supporting evidence, elaborate the Kekule structure of Benzene.
2. What is Kharach effect. Explain antimarkovnikov's rule. Write briefly on stability of conjugated dienes.
3. Explain the polarity of carbonyl group. Give two important methods of preparation of carbonyl compounds. Give the mechanism involved in the aldol condensation and Cannizaro's reaction.

Short notes   (14x5=70)

4. List any three general methods of preparation of alcohols.
5. Give the mechanism involved in Kolbe-Schmidt and Fries rearrangement.
6. Explain the ring stabilities of cyclohexane with suitable examples.
7. Briefly explain the acidity of nitro compounds with suitable examples.
8. What is decarboxylation reaction. Give any two important methods of preparation of carboxylic acids.
9. Give brief account on malonic and acetoacetic esters. Write their synthetic applications.
10. Give three reactions for aromatic nitro compounds.
11. Explain the concept of resonance with suitable illustrations.
12. Explain the role of solvents in nucleophilic aliphatic substitution reactions.
13. Write the structures for the following IUPAC names.
    a) 4-hydroxy Octane
    b) 3-chloro-5-methyl-7-nitro Decane
    c) 3-oxo-Heptanoic acid
    d) Hex-4-en-2-one
    e) Ethyl ethanoate
14. What is Walden inversion. Explain with suitable example.
15. Explain Hoffmann degradation of amides with suitable example.
16. Give an account of acidity of phenols. Explain the effect of electron withdrawing groups on the acidity of phenols.
17. Explain Saytzeff's rule with suitable examples.

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