

2012 Scheme

QP CODE: 112006

Reg. No:

First Year B. Pharm Degree Supplementary Examinations January 2024 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. Give any five characteristic reactions of benzene. Explain reactivity and orientation in monosubstituted benzenes.
2. State Markonikov's rule. Give the mechanism of electrophilic addition to unsymmetrical alkenes in presence of peroxides. Write a note on the stability of conjugated dienes.
3. Describe three general methods of preparation of alcohols, carboxylic acids and ketones.

Short notes

(14x5=70)

4. List any three methods of preparation of phenols.
5. What is Williamson's synthesis. Explain the action of hydroiodic acid on ethers.
6. Explain Bayer's strain theory with suitable illustrations.
7. Why aliphatic amines are comparatively more basic than aromatic amines. Explain with suitable illustrations.
8. Write the mechanism involved in Perkin's and Reformatsky reaction.
9. Briefly explain about acidity and reactivity of dicarboxylic acids.
10. Give three reactions for aromatic nitro compounds.
11. Explain hyperconjugation and mesomeric effects.
12. Explain the mechanism involved in SN_1 and SN_2 reactions.
13. Write the structures for the following IUPAC names.
 - a) 4-Chloro pentanal
 - b) 3-Hydroxy hexanoic acid
 - c) 4-oxo-Octanoic acid
 - d) Hex-4-en-1-ol
 - e) 3-Chloro-4-Bromo-Heptane
14. Give hydrolysis and reduction reactions of esters and amides with suitable examples.
15. Explain the mechanism of free radical halogenation of alkanes. Give an account of halogen selectivity.
16. What is diazotisation reaction. Give reason for the low temperature requirement for this reaction. Elaborate the mechanism with suitable example.
17. Explain the method of preparation and synthetic uses of ethyl acetoacetate.
