

**First B. Pharm (Ayurveda) Degree Supplementary Examinations
September 2022**

Pharmaceutical Chemistry

Time: 3 hrs**Max 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*
- *Draw Diagrams wherever necessary • Write equations wherever necessary*

Essays**(2x10=20)**

1. What is electrophilic aromatic substitution reaction. Explain the effect of substituents on reactivity and orientation of these reactions.
2. Explain acidity of carboxylic acids and basicity of amines.

Short notes**(10x5=50)**

3. Give reactions of diazonium salts.
4. What is Markovnikov 's rule. Illustrate it.
5. Reactions of alkanes.
6. Discuss stability of cyclic compounds.
7. Explain the mechanism of halogenations of benzene.
8. Briefly explain the structure of benzene.
9. Define carbocation. Explain their stability. Arrange them in the increasing order of stability.
10. Explain the principle and procedure behind the assay of ammonium chloride.
11. Give reactions of nitro compounds.
12. Note on (a) inductive effect (b) Hybridization

Answer briefly**(10x3=30)**

13. Define free radicals with examples.
14. Types of covalent bond.
15. Give uses of ammonium chloride and borax.
16. Give uses of ferrous sulphate.
17. What is the use of thioglycolic acid in Iron limit test.
18. Cannizzaro reaction.
19. Applications of UV spectroscopy.
20. Any one method of preparation of (a) Alkyl halides (b) Aryl halides.
21. Give structure of primary, secondary and tertiary amines.
22. Write the structure and IUPAC name of: (a) tert-Butyl chloride (b) Formamide.
