

**First B. Pharm (Ayurveda) Degree Regular/Supplementary Examinations
March 2023**

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. Discuss general methods of preparation and reactions of ketones.
2. Discuss on methods of preparation and reactions of amines. Add a note on basicity of amines.

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

3. Activating and deactivating groups in electrophilic aromatic substitution.
4. Reactions of alkyl halides.
5. Kekule and Dewar structures of benzene.
6. Reactions of alkynes.
7. SP² hybridisation.
8. Preparation and assay of ammonium chloride.
9. UV spectroscopy and its applications.
10. Nucleophilic addition reactions
11. Free radical substitution reaction of alkanes.
12. Methods of preparation and reactions of secondary alcohol.

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

13. Reactions of dicarboxylic acids.
14. Limit test for arsenic.
15. Write structures of 2,3-dimethyl-1-propanol and 1-Phenyl-2-propanone.
16. Friedel Craft alkylation.
17. Cannizzaro reaction.
18. Synthesis of nitro compounds.
19. Preparation and uses of cyclopropane.
20. Reactions of acid chlorides.
21. Effect of substituents on acidity of carboxylic acids.
22. Inductive effect.
