

**First B. Pharm (Ayurveda) Degree Supplementary Examinations
August 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. Explain acidity of phenol and effects of substituents on acidity of phenol.
2. Define free radicals. Explain free radical substitution reaction of methane.

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

3. Describe the mechanism of sulphonation and chlorination of benzene.
4. Note on general methods of preparation of cycloalkane.
5. Give assay of borax.
6. Give the principle and reaction behind the limit test of chlorides and iron.
7. Aldol condensation with mechanism.
8. Friedel craft's acylation with mechanism.
9. What is diazotization reaction.
10. How do you convert acetic acid into its acetic anhydride and acetyl chloride.
11. Give any two reactions of (a) Amines (b) Alcohols
12. Define (a) Carbonium ions (b) Inductive effect (c) Hyper conjugation

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

13. Applications of IR spectroscopy.
14. Define resonance. Give resonance structures of any one organic compound.
15. Write chemical reactions behind limit test of arsenic.
16. Preparation of ammonium chloride and its uses.
17. Give any two reactions of alkyl halides.
18. Define hydrogen bond. What are the types of hydrogen bonds.
19. Note on ionic bond with example.
20. Note on Huckel's rule.
21. Write the structure of 2-methyl pentanoic acid, Chloroacetic acid.
22. Give any one test to identify aldehydes.