

QP Code: 321006

Reg. No.....

**Third Semester B. Pharm Degree Supplementary Examinations
September 2025**

**Pharmaceutical Organic Chemistry - II
(2017 Scheme)**

Time: 3 Hours

Max. Marks: 75

- 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 table/diagrams/flow charts wherever necessary

Essays

(2x10=20)

1. Describe the reaction mechanism and limitations of following reactions of benzene
 - a) Nitration
 - b) Friedel-Crafts alkylation
2.
 - a) What are fats and oils. Enumerate their pharmaceutical importance.
 - b) Explain the principle involved in the determination of saponification and iodine values of fats along with their significance.

(5+5)

(3+7)

Short Notes

(7x5=35)

3. Explain the aromatic behavior of benzene based on Huckel's rule.
4. Explain the influence of substituents on acidity of phenols.
5. Give a note on basicity of amines.
6. Describe the hydrogenation reactions of fats.
7. What are polynuclearhydrocarbons. Outline any two methods of preparation of anthracene.
8. Write any three electrophilic substitution reactions of naphthalene.
9. What are cycloalkanes. Outline any two methods of preparation of cyclopropane.

Answer Briefly

(10x2=20)

10. Add a note on orbital picture of benzene.
11. Give the structure and uses of
 - a) Dichlorodiphenyltrichloroethane (DDT)
 - b) Saccharin
12. Write any two qualitative tests for phenols.
13. Enumerate the synthetic uses of aryl-diazonium salts.
14. Write any two methods of preparation of triphenyl methane.
15. Draw the structure of phenanthrene and write the medicinal uses of any two phenanthrene derivatives
16. What are fatty acids. Give examples.
17. Explain the significance of Reichert-Meissl (RM) value in the quality analysis of oils and fats.
18. Outline the two important chemical reactions of cyclopropane.
19. State Bayers Strain theory.
