

QP Code: 321006

Reg. No.....

**Third Semester B. Pharm Degree Regular/Supplementary Examinations  
May 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. a) Outline the general reaction mechanism of Aromatic Electrophilic Substitution (AES) reaction.  
b) Explain the influence of substituents on the reaction orientation. (4+6)
2. Outline Haworth synthesis and any four chemical reactions of anthracene.

**Short Notes**

**(7x5=35)**

3. Why benzene is aromatic. Explain based on Huckel's concept.
4. Give a note on diazotization reaction along with their synthetic uses.
5. Explain acidic behavior of phenols with illustrations.
6. Explain the principle and chemical significance of saponification value determination.
7. Give a note on hydrogenation and hydrolysis of fats.
8. Explain the following
  - a) Rancidity of oil
  - b) Drying of oil
  - c) Acid value
9. Write a note on Baeyer's strain theory

**Answer Briefly**

**(10x2=20)**

10. Outline Friedel-Crafts acylation.
11. Give the structure and uses of
  - a) Benzene hexachloride (BHC)
  - b) Chloramine
12. Aromatic amines are basic. Explain. Why.
13. Draw the structure and list the medicinal uses of cresol and resorcinol.
14. Explain the significance of iodine value in the quality analysis of oils and fats.
15. Explain the pharmaceutical importance of fatty acids.
16. Draw the structure of phenanthrene and give any two medicinal importance of phenanthrene derivatives
17. Give two important reactions of naphthalene.
18. Outline the chemical synthesis of cyclobutane.
19. State Sachse-Mohr theory.

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