



PAPER ID-410972

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Subject Code: BP301T

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**BPHARMA**  
**(SEM III) THEORY EXAMINATION 2023-24**  
**PHARMACEUTICAL ORGANIC CHEMISTRY II**

TIME: 3 HRS

M.MARKS: 75

**Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

**1. Attempt all questions in brief.**

**10 x 2 = 20**

a.	Draw the orbital structure of benzene.
b.	Define Huckel's rule with example.
c.	Discuss the structure and uses of BHC.
d.	Outline any two important reactions of phenol.
e.	Outline the structure and uses of aryl diazonium chloride.
f.	Illustrate any two important reactions of fatty acids.
g.	Differentiate between saturated and unsaturated fatty acids with suitable example.
h.	Outline the structure and uses of diphenyl methane.
i.	Compare the stability and reactivity of naphthalene and phenanthrene.
j.	Illustrate any two reactions of cycloalkanes.

**SECTION B**

**2. Attempt any two parts of the following:**

**2 x 10 = 20**

a.	Summarize the analytical, synthetic, and other evidence in the derivation of structure of benzene.
b.	Illustrate the Baeyer's strain theory of stability of cycloalkanes and its limitations.
c.	Discuss the principle, procedure, and significance of "Acid value" and "Iodine value".

**SECTION C**

**3. Attempt any five parts of the following:**

**7 x 5 = 35**

a.	Illustrate the effect of substituent on the orientation and reactivity of mono-substituted benzene.
b.	Outline the mechanism of Friedel craft's alkylation reaction of benzene and its limitations.
c.	Summarize the basicity of aromatic amines and analyze the effect of substituents on the basicity of aromatic amines with suitable examples.
d.	Illustrate the method of preparation and reactions of aromatic acids.
e.	Summarize "Rancidification" and "Drying oil" reactions of fats/oils.
f.	Illustrate the structure, synthesis, and reactions of anthracene.
g.	Explain Sachse-Mohr's theory of stability of cycloalkanes.