PAPER ID-310798

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Subject Code: BP301T

Roll No:

BPHARM
(SEM III) THEORY EXAMINATION 2025-26
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.	State Huckel's rule of aromaticity.
b.	Why benzene undergoes electrophilic substitution reactions?
c.	What is Friedel–Crafts acylation?
d.	Define acid value of oils.
e.	What is saponification?
f.	Name any Two Polynuclear Hydrocarbon.
g.	What is Baeyer's strain theory?
h.	How do electron withdrawing groups affect the acidity of carboxylic acids?
i.	Name one qualitative test for phenols.
j.	Write one medicinal use of naphthalene.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Explain the structure of benzene. Discuss orbital picture, resonance and aromatic nature of benzene with Huckel's rule.
b.	Explain nitration, sulphonation and halogenation reactions of benzene. Add limitations of Friedel–Crafts alkylation.
c.	Explain analytical constants of fats and oils. Describe the principle and significance of acid value, saponification value and iodine value.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Explain the effect of substituents on reactivity and orientation of mono substituted benzene towards electrophilic substitution reactions.
b.	Explain acidity of phenols and effect of substituents on their acidity. Add qualitative tests of phenols.
c.	Explain basicity of aromatic amines and synthetic uses of aryl diazonium salts.
d.	Describe hydrolysis, hydrogenation, saponification and rancidity of fats and oils. Add a note on drying oils.
e.	Explain synthesis, reactions, structure and medicinal uses of polynuclear hydrocarbons such as naphthalene and anthracene.
f.	Explain Baeyer's strain theory, its limitations and Sachse–Mohr theory of cycloalkanes.
g.	Write structure and uses of DDT, BHC, saccharin and chloramine.