

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[PHARMD 0423]

APRIL 2023

Sub. Code: 3804

PHARM. 'D' DEGREE EXAMINATION  
FIRST YEAR (2009-2010 Regulation)  
PAPER IV – PHARMACEUTICAL ORGANIC CHEMISTRY

*Q.P. Code: 383804*

**Time : Three hours**

**Answer ALL Questions**

**Maximum : 70 Marks**

**I. Elaborate on:**

**(4 x 10 = 40)**

1. Explain the mechanism of nucleophilic aromatic substitution reactions, orientation and reactivity of benzene.
2. Explain about the electrophilic aromatic substitution reaction with emphasis to mechanism on halogenation and sulphonation.
3. Give an account of acid and base on the basis of Lewis theory and Lowry Bronsted theory.
4. Write a note on:
  - i) Williamson Synthesis
  - ii) Michael addition.

**II. Write notes on:**

**(6 x 5 = 30)**

1. Write a note on the acidity of phenols.
2. Brief out on Perkin condensation with mechanism.
3. Give an account on the phase transfer catalysis.
4. Write a note on per oxide effect.
5. Explain the Sandmeyer's reaction with suitable examples.
6. Give an account on the preparation, test for purity, assay and medicinal uses of mephenesin and salicylic acid.

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