[LO 804] MAY 2019 **Sub. Code: 3804**

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

Q.P. Code : 383804

Time : Three hours **Maximum : 70 Marks**

I. Elaborate on: **(4 x 10 = 40)**

1. Explain the Aliphatic nucleophilic substitution with mechanisms and kinetics involved in the reactions.
2. Explain the mechanisms of following name reactions:
   a) Benzoin condensation. b) Wittig reaction.
3. Explain the activating and deactivating O, P, and M directing groups in the aromatic compounds.
4. Give an account of acid and base on the basis of Lewis theory and Lowry-Bronsted concept.

II. Write notes on: **(6 x 5 = 30)**

1. Preparation, tests for purity, assay and uses of aspirin.
2. Explain the reaction mechanisms of Sandmeyer's reduction with suitable examples.
3. Explain fries rearrangement and Hofmann rearrangement.
4. Add a note on Isomerism.
5. What are cycloalkanes? Give example. How the cycloalkanes are prepared?
6. Polarity of bond and Aprotic solvents.

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