[LK 804] MAY 2017 **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. What do you understand the term aromatic electrophilic substitution reaction and its general mechanism. Discuss the aromatic electrophilic substitution reactions, sulphonation and friedel craft alkylation reaction.
2. What are Bayer's strain theory and its limitations? Discuss the relative stability of cyclohexane.
3. Discuss the reaction, mechanism and its synthetic application of
   a) Sandmayers reaction b) Reformatsky reaction
4. Discuss electrophilic and free radical reactions in alkenes.

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

1. Polarity of bond and molecules.
2. Stereoisomerism.
3. With example explain the mechanism of SN_2 reaction.
4. 1, 2 – addition *versus* 1, 4 – addition reaction in conjugated dienes.
5. Nucleophilic aromatic substitution reactions.
6. Discuss the preparation, assay and uses of Dimercaprol.

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