## 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 :  $(4 \times 10 = 40)$ 

1. Discuss the electrophilic substitution reaction in aromatic system. Explain Mechanism of their reaction.

- 2. Briefly discuss Markownikoff's rule and Peroxide effect with an example.
- 3. Discuss about Dehydro halogenation of alkyl halides. Explain about its Kinetic and mechanism of E1 and E2 reactions.
- 4. Explain the following reaction with mechanism:
  - a) Michael addition b) Reimer tieman's reactions

II. Write notes on:  $(6 \times 5 = 30)$ 

- 1. Write short notes on Baeyr's strain theory.
- 2. Mention the structure and name them according to IUPAC
  - i) Formic acid ii) Acetaldehyde iii) Acetamide iv) Neopentane
- 3. Write the structure, preparation, Assay and chemical uses of Ethylene diamine dihyrate.
- 4. Explain stereochemistry of  $S_N1$  and  $S_N2$  reactions.
- 5. Explain the method of preparation of esters and anhydride.
- 6. Explain the Wittig reaction with mechanisms.

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