

[KX 804]

SEPTEMBER 2010

Sub. Code: 3804

**DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION****(Regulations 2008-2009 )****(Candidates admitted from 2008-2009 onwards)****FIRST YEAR****PAPER IV – PHARMACEUTICAL ORGANIC CHEMISTRY***Q.P. Code: 383804***Time: Three Hours****Maximum: 70 marks****Answer ALL questions****I. Elaborate on:****(2 x 20 = 40)**

1. a) Write the Mechanism, reactivity, orientation of aromatic electrophilic substitution reaction with suitable examples.  
b) Explain briefly about hybridization.
2. a) Why are aldehydes more reactive than ketone?  
Give an account of the nucleophilic additions of aldehyde with the help of general mechanism.  
b) What are Organometallic compounds?  
How they are prepared?  
Give its synthetic applications.

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

1. Give the general methods of preparations of alcohols with examples?  
How will you differentiate between 1°, 2°, 3° alcohols?
2. Explain the following reactions:
  - i) Cannizaro reaction.
  - ii) Diel's Alder reaction.
3. Give the preparations of Ethers by Williamson's synthesis.
4. Add a note on Isomerism.
5. Explain Bayer's Strain Theory.
6. Add a note on Free Radicals.

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