

[PHARMD 0122]

JANUARY 2022  
(OCTOBER 2021 EXAM SESSION)

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. Discuss on the mechanism, kinetics and stereo chemistry of Aliphatic nucleophilic substitution with suitable examples.
2. Elaborate on the free radical halogenations reaction in alkenes. Compare free radical substitution with free radical addition.
3. Specify on the mechanism and ionization of carboxylic acids.  
Add a note on the conversion of acid to amide and ester
4. Explain the following reactions:
  - a) Fries Rearrangement.
  - b) Reimer - Tiemann reaction.

**II. Write notes on:**

(6 x 5 = 30)

1. Briefly write on the polarity of molecules and bonds.
2. Explain how the nomenclature of the organic compound is expressed in case of aldehydes and dienes.
3. What are the various organic redox reactions? Give a note on any one reaction.
4. Give the preparation, assay and use of Lactic acid and Ethyl benzoate.
5. Jot down on the basicity of amines.
6. What is resonance and hyperconjugation? Add salient features on the resonance stabilization of allyl radicals.

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