

[LA 804]

APRIL 2012

Sub. Code: 3804

**DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION****FIRST YEAR****PAPER IV – PHARMACEUTICAL ORGANIC CHEMISTRY***Q.P. Code: 383804***Time: Three Hours****Maximum: 100 marks****Answer ALL questions in the same order.****I. Elaborate on :****Pages Time Marks  
(Max.) (Max.) (Max.)**

1. a) Elaborate the mechanism, kinetic and stereochemistry of aliphatic nucleophilic Substitution ( $SN^1$  and  $SN^2$ ) reaction.  
b) Explain about the role of phase transfer catalysis in substitution reaction. 17 40 min. 20
2. a) Illustrate about the Kinetic, mechanism and isotopic effect of  $E1$  and  $E2$  reactions.  
b) Add a note on dehydration of acid catalysis. 17 40 min. 20

**II. Write notes on :**

1. Give an account of acid and base on the basis of Lewis theories. 4 10 min. 6
2. Preparation, test for purity, assay and uses of vanillin. 4 10 min. 6
3. Explain the mechanism of halogenations of alkanes. Give the evidence for the same. 4 10 min. 6
4. Outline any two methods of conversion of acids to acid chloride and amide. 4 10 min. 6
5. Discuss the mechanism and synthetic uses of benzoin condensation reaction. 4 10 min. 6
6. Describe the preparation methods for esters. 4 10 min. 6
7. Outline briefly about Bayer strain theory. 4 10 min. 6
8. Discuss the mechanism and synthetic uses of Wittig reaction. 4 10 min. 6
9. Write a note on Diels Alder reaction. 4 10 min. 6
10. Preparation, test for purity, assay and uses of Aspirin. 4 10 min. 6

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