

[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.)**

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| 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 :

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| 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 witting 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 |
