

[LG 344]

APRIL 2015

Sub. Code: 2905

**M.PHARM. DEGREE EXAMINATION  
FIRST YEAR  
BRANCH II – PHARMACEUTICAL CHEMISTRY  
PAPER II – ADVANCED ORGANIC CHEMISTRY**

*Q.P. Code : 262905*

**Time : Three hours**

**Maximum : 100 marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. What do you understand by the term aliphatic nucleophilic substitution reactions? Explain the reaction, kinetics, mechanism, stereochemistry and factor affect of  $SN_1$  reactions.
2. Discuss the reaction, mechanism and synthetic importance of
  - a) Grignard reaction
  - b) Hoffman reactions
  - c) Oppenauer oxidation.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Discuss the effect of structure on reactivity with suitable examples.
2. Write note on asymmetric synthesis.
3. Write note on E2 elimination reactions.
4. Write note on electro cyclic reactions.
5. Discuss the synthetic approach and medical use of any one five member heterocyclic ring system.
6. Discuss the various types of mechanism with suitable examples.
7. Discuss the chirality and importance of chiral drugs.
8. Discuss the formation and stability free radicals.
9. Discuss the orientation and reactivity of monosubstituted benzene.
10. Write note on selective functional group inter-conversions.

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