

PARANA – I (2012 COURSE) (CBCS): SUMMER – 2016
SUBJECT : ADVANCED PHARMACEUTICAL CHEMISTRY – I

Day : *Wednesday*
Date : *06-07-2016*

Time : *10:00AM TO 1:00PM*
Max. Marks : 60

N.B.:

- 1) Attempt any **THREE** questions from Section I & any **THREE** questions from Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in the **SEPARATE** answer books.

SECTION – I

- Q.1** Explain the concept of catalysis with its classification. Discuss in detail about transition metal catalysis. [10]
- Q.2** Discuss various methods for the protection and deprotection of -OH and -NH₂ groups. [10]
- Q.3** a) Explain what are nucleophilic and non-nucleophilic bases. Give structures of any two strong non-nucleophilic bases used for generation of enolate anions. [05]
b) Discuss in detail nucleophilic fluorination reactions. [05]
- Q.4** Write short notes on **ANY TWO** of the following: [10]
a) Homogeneous and heterogeneous reductions
b) Hoffmann degradation
c) Pinacol pinacolone rearrangement

SECTION – II

- Q.5** What are “ α – methylene lactones”? How do they differ from conjugated lactones? Give one example of each along with their preparation. [10]
- Q.6** Discuss electrocyclic reactions in detail. [10]
- Q.7** Discuss the stereochemistry and its importance in medicinal chemistry. [10]
- Q.8** Write notes on **ANY TWO** of the following: [10]
a) Hinsberg thiophene synthesis
b) Fisher indole synthesis
c) Knorr and Paal – Knorr pyrrole synthesis

