

PARANA – II (2012 COURSE) (CBCS): **JULY-2014**  
SUBJECT : ADVANCE CORE SUBJECT – II: ADVANCED PHARMACEUTICAL  
CHEMISTRY – II

Day : **Wednesday**  
Date : **02-07-2014**

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

**N.B.:**

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

**SECTION – I**

- Q.1** Explain in detail rationale for design of covalently binding inhibitors along with examples. [10]
- Q.2** Discuss giving examples, **ANY TWO** of the following: [10]
- |                          |                              |
|--------------------------|------------------------------|
| a) Leucotrine inhibitors | c) Cytochrome-450 inhibitors |
| b) MAO inhibitors        | d) DNA intercalating agents  |
- Q.3** Discuss pharmaceutical applications of prodrugs. [10]
- Q.4** Write elaborate notes on **ANY TWO** of the following: [10]
- a) Ideal properties and limitations of prodrugs
  - b) Site specific delivery through prodrugs
  - c) Ringdorf's model
  - d) Macromolecular prodrug

**SECTION – II**

- Q.5** Discuss giving examples, the guidelines used in designing compounds by synthon approach. [10]
- Q.6** Enlist QSAR models used in drug design and describe Hansch analysis in QSAR with application. [10]
- Q.7** Describe synthesis of **ANY TWO** of the following using synthon approach: [10]
- |                  |                  |
|------------------|------------------|
| a) Trimethoprin  | c) Rosiglutazone |
| b) Ciprofloxacin | d) Diclofenac    |
- Q.8** Write elaborate notes on **ANY TWO** of the following: [10]
- a) Advantages and limitations of QSAR
  - b) Direct ligand – gated ion channels
  - c) Analog based drug design