

**M. PHARM. SEM-II (CHOICE BASED CREDIT & GRADE SYSTEM)  
: SUMMER - 2018**

**SUBJECT : ADVANCED PHARMACEUTICAL CHEMISTRY – II**

Day : Tuesday  
Date : 03/07/2018

**S-2018-4000**

Time : 10.00 AM to 01.00 PM  
Max. Marks : 60

**N. B. :**

- 1) Attempt **ANY THREE** questions from Section – I and attempt **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** a) Explain the enzyme structure in details. (05)  
b) Write a detailed note on HMG-CO-A inhibitors. (05)
- Q. 2** a) Write on exhaustive account of DNA intercalating agents. (05)  
b) Describe in details about agents interacting with ribosomal RNA. (05)
- Q. 3** a) Explain prodrug concept and discuss the characteristic features and rational way to design an ideal prodrug. (03)  
b) How site specific delivery can be successfully achieved through prodrugs? Explain citing examples. (07)
- Q. 4** Write short notes on **ANY TWO** of the following: (10)  
a)  $K_{cat}$  inhibitors  
b) Polymeric prodrugs and their applications  
c) Twin drugs

**SECTION - II**

- Q. 5** What are the various strategies used in drug design? Elaborate structure based drug design with an example. (10)
- Q. 6** Write details of Hansch analysis in QSAR. Discuss role of various physicochemical parameters in QSAR. (10)
- Q. 7** Elaborate on drug discovery from natural sources. Give details of ligand-based molecular modeling. (10)
- Q. 8** Write short notes on **ANY TWO** of the following: (10)  
a) Basic rules of disconnection  
b) Retrosynthesis of Diclofenac  
c) Retrosynthesis of Ciprofloxacin  
d) Hybrid molecules

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