M. PHARM. SEM-I (CHOICE BASED CREDIT & GRADE SYSTEM) : WINTER - 2017

SUBJECT : ADVANCED PHARMACEUTICS – I

Day : **Monday** Time : **10.00 AM to 01.00 PM**

Date : **08/01/2018** **W-2017-3857** Max. Marks : 60

N.B.

1) Answer any **THREE** questions from **Section – I** any **THREE** questions from **Section – II.**
2) Both the sections should be written in separate answer books.
3) Figures to the right indicate **FULL** marks.

SECTION - I

Q.1 Elaborate on the significance of drug-excipient compatibility testing with the help of examples. **(10)**

Q.2 Give an account of various parameters to be considered during stability testing and evaluation as per ICH guidelines. **(10)**

Q.3 Explain the various kinetic models useful to describe dissolution profile. Add a note on model independent approach to compare dissolution profiles. **(10)**

Q.4 Write short notes on: **(10)**

a) Factorial design.

b) Principle and instrumentation of laser diffraction based particle size analysis

SECTION – II

Q.5 What are cyclodextrins? Explain the methods of preparation and characterization of cyclodextrin complexes. **(10)**

Q.6 What are bioresorbable polymers? Explain the different mechanisms of biodegradation. **(10)**

Q.7 Explain the different liquid crystalline phases and the methods to identify them. **(10)**

Q.8 Write notes on : **(10)**

a) Glass transition temperature of polymers and its significance.

b) Mathematical approaches to study compressional behavior of solids.

* * * * *