

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

SUBJECT: ADVANCED PHARMACEUTICAL CHEMISTRY-I

Day: Monday
Date: 07/01/2019

W-2018-4156

Time: 10.00 A.M. TO 01.00 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) Give reactions, structures, schemes **WHEREVER** necessary.
 - 4) Figures to the right indicate **FULL** marks.
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SECTION-I

- Q.1** Discuss various methods for the protection and deprotection of -OH and -NH₂ group (10)
- Q.2** Discuss the concept of catalysis with its classification. Explain mechanism of surface catalyzed reaction. (10)
- Q.3** a) Discuss the importance of fluorine, -CF₃ and -OCF₃ group in organic molecule (05)
b) Discuss in detail nucleophilic fluorination reactions. (05)
- Q.4** Write short notes on any **TWO** of the following: (10)
- a) Hoffman degradation
 - b) Benzil – benzilic acid rearrangement
 - c) Homogeneous and heterogeneous reduction

SECTION-II

- Q.5** Classify pericyclic reactions and discuss cycloaddition reactions in detail. (10)
- Q.6** Discuss in detail stereochemistry of allenes and biphenyls. (10)
- Q.7** a) Discuss IUPAC nomenclature of hetero cyclic compounds with examples. (05)
b) Describe Fisher indole synthesis and Hinsberg thiophene synthesis. (05)
- Q.8** Write short notes on any **TWO** of the following: (10)
- a) Methods of preparations for α methylene lactones
 - b) Stereochemistry of Spiro compounds
 - c) Curtin Hammet principle

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