

M.PHARM (Pharmaceutical Chemistry) SEM – II (CBCS - 2019 COURSE): Winter-2021
SUBJECT: ADVANCED ORGANIC CHEMISTRY - II

Day: Tuesday
Date: 30-11-2021

Time: 02:00 PM-05:00 PM
Max Marks: 75

W-20773-2021

N.B.

- 1) **Q. No. 1 and 5 are COMPULSORY.** Out of remaining questions answer Any **TWO** from each section.
- 2) Answer to both section should be written in **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.

SECTION – I

- Q.1** Discuss in detail basic principle of photochemical reaction. (08)
- Q.2** Discuss in detail sigmatropic Rearrangement Reaction with suitable example. (15)
- Q.3**
- a) Write in detail the basic principle of Green chemistry. (08)
 - b) Write in detail about site specific chemical modification of peptides. (07)
- Q.4** Write notes on any **TWO** of the following: (15)
- a) Pericyclic Reactions
 - b) Ultrasound Assisted Reactions
 - c) Microwave technology in process optimization

SECTION - II

- Q.5** Give applications of phase transfer catalysis. (07)
- Q.6** Give any two examples each of homogenous and heterogeneous catalysis in drug synthesis. Explain hydroformylation and hydrocyanation reactions emphasizing the catalysis involved. (15)
- Q.7** Elaborate Fischers D and L notation, cis – trans isomerism and E and Z notation with suitable examples. Explain the meso compounds and what is axis of symmetry. (15)
- Q.8** Write notes any **TWO** of the following: (15)
- a) Chiral auxiliaries
 - b) Metal catalyzed reactions
 - c) Supported catalysis

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