SUPPLEMENTARY
MASTER OF PHARMACY (M. PHARM.) (CBCS-2019 COURSE)
M.Pharm. Sem-II PHARMACEUTICAL CHEMISTRY :SUMMER- 2022
SUBJECT : ADVANCED ORGANIC CHEMISTRY-II

Day : Friday
Time : 10:00 AM-01:00 PM

Date : 16-09-2022
S-20773-2022
Max. Marks : 75

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

SECTION-I

Q.1 Write a note on ultra sound assisted reaction **(08)**

Q.2 what is solid phase synthesis. explain various solid supports and linkers used for solid phase synthesis. add on note on FMOC strategy for protection. **(15)**

Q.3 A) Explain the mechanism of cycloaddition Diels alder reaction with respect to its frontier orbitals. **(08)**

B) Draw all possible conformations of cis trans 1,3 dimethylcyclohexane. Based on the conformations predict the most stable conformations giving reasons. **(07)**

Q.4 Write a note on any **TWO** of the following. **(15)**
A) Discuss mechanism and applications of microwave assisted organic synthesis
B) Pericyclic reaction
C) Continuous flow reactor

SECTION-II

Q.5 Explain CIP sequence rules **(07)**

Q.6 Give any two examples of each of homogeneous and heterogeneous catalysis in drug synthesis. Explain hydroformylation and hydrocyanation reaction emphasizing the catalyst involved. **(15)**

Q.7 A) Discuss in detail sigmatropic rearrangement reaction with examples **(08)**
B) Explain the methods of racemic resolution **(07)**

Q.8 Write a note on any **TWO** of the following. **(15)**
A) Give applications of phase transfer catalysis
B) Homogeneous catalysis with respect to hydroformylation
C) Side reactions in peptide synthesis

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