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Total No. of Pages : 02

Total No. of Questions : 08

M.Sc. (Ph. Chemistry) (2018 Batch) (Sem.-I)  
**ADVANCED ORGANIC CHEMISTRY**  
**INCLUDING HETEROCYCLIC CHEMISTRY**  
Subject Code : MSPC-101  
M.Code : 20501

Time : 2 Hrs.

Max. Marks : 40

**INSTRUCTIONS TO CANDIDATES :**

1. Attempt any FIVE question(s), each question carries 8 marks.

1. Explain the following reactions :-
  - a) Aldol condensation
  - b) Hoffmann Bromamide
  - c) Grignard Reaction
  - d) Curtius Reaction.
2. Explain the synthesis and reactions of Aziridines, Thiranes.
3. a) Explain (4+2 $\pi$ ) pericyclic reactions.  
b) Explain sigmatropic rearrangement(1,3) (1,5).
4. Explain SN1 & SN2 reactions.
5. Explain in detail all the conformational isomers of cyclohexane and cyclobutane.
6. Explain reactions and synthesis of Pyrimidines and Pyrazins.
7. Explain the following :
  - a) Topicity
  - b) Homotopicity
  - c) Enantiotopicity
  - d) Distereotopicity
8. Explain the followings :
  - a) Difference between D&L configuration.
  - b) Optical isomerism
  - c) Chirality
  - d) Stereoselective & Stereospecific Reactions

Note: Any student found attempting answer sheet from any other person(s), using incriminating material or involved in any wrong activity reported by evaluator shall be treated under UMC provisions.

Student found sharing the question paper(s)/answer sheet on digital media or with any other person or any organization/institution shall also be treated under UMC.

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