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Total Pages : 3

Roll No.

MCH-607

M.Sc. Chemistry (MSCCH)

Synthetic Organic Chemistry-II

Examination February, 2026

Time : 2:00 Hrs.

Max. Marks : 35

Note :- This paper is of Thirty Five (35) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. *Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.*

Section-A

(Long Answer Type Questions) (2×9½=19)

Note :- Section 'A' contains Five (05) Long-answer type questions of Nine and Half (9½) marks each. Learners are required to answer any *two* (02) questions only.

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(1)

P.T.O.

1. Write notes on the following :
 - (a) Synthons and synthetic equivalents with suitable examples
 - (b) Discuss protection of amines
2. Explain the three membered and four membered ring cyclisation reaction.
3. Explain the following terms :
 - (a) Functionalization
 - (b) Regioselectivity
 - (c) Retron
4. Write the retrosynthetic analysis and synthesis of Disparlure.
5. Write notes on the following :
 - (a) Chemoselectivity
 - (b) Stereoselectivity

Section–B

(Short Answer Type Questions) (4×4=16)

Note :- Section 'B' contains Eight (08) Short-answer type questions of Four (04) marks each. Learners are required to answer any *four* (04) questions only.

1. What is protecting group ? Discuss the protection of ketone.
2. Write the retrosynthetic analysis and synthesis of ZJasmone.
3. Discuss asymmetric Diel's-Alder reaction-with suitable example.
4. Write short notes on the following :
 - (a) Felkin-Anh model
 - (b) Cram's dipolar model
5. What is functional group inter conversion (FGI) ? Discuss it with suitable example.
6. Write a note on Prelog's rule.
7. Discuss the principle of protection of carbonyl group.
8. How will you explain terms topicity and prochirality ? Take suitable examples.
