

QP CODE:104326

Reg. No:

**First Year Pharm D Degree Supplementary Examinations
February 2026
Pharmaceutical Organic Chemistry**

Time: 3 Hours

Total Marks: 70

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Write equation wherever necessary.*

Essay

(3x10=30)

1. Discuss in detail free radical chain reactions of alkanes with mechanism. Add a note on stability of free radicals.
2. What are nucleophilic aliphatic substitution reactions. Explain the reaction, mechanism, kinetics and stereochemistry of SN1 reaction.
3. Explain Markovnikoff and antimarkovnikoff addition reactions with examples.

Short notes:

(8x5=40)

4. Define cycloalkanes with examples. Write any four methods of preparation of cycloalkanes.
5. Define carbocations. Write a note on stability of carbocations.
6. Write the reaction, mechanism involved in Michael addition.
7. Differentiate SN₁ and SN₂ reactions.
8. Discuss acidity of carboxylic acids. Add a note on effect of substituents on acidity of carboxylic acids.
9. Write the reaction, mechanism involved in Perkins condensation.
10. Explain the preparation, test for purity, assay and medicinal uses of dimercaprol.
11. Enumerate the IUPAC rules for naming alkanes with examples.

CORRECTION / NO-CORRECTION FILE
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QPCODE: 104326

Dated: 09-02-2026

Question No.6

Modified as "Write the reaction and mechanism involved in Michael addition".

Question No.9

Modified as "Write the reaction and mechanism involved in Perkins condensation".

Corrections/Modifications/Replacement of Questions if any shall be made available to all students. Take the print out of the Correction File in such cases and distribute to all students.

(Sd/-)

CONTROLLER OF EXAMINATIONS