



PAPER ID-311466

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Subject Code: MPC102T

Roll No: 2301680576001

MPHARM
(SEM I) THEORY EXAMINATION 2023-24
ADVANCED ORGANIC CHEMISTRY -I

TIME: 3 HRS

M.MARKS: 75

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief.

10 x 2 = 20

a.	What is Saytzeff's rule?
b.	Which type of compounds exhibit addition reactions?
c.	Enlist the reactants of Ugi Reaction.
d.	Which reaction is used for coupling of aryl halides?
e.	Draw the structure of DEAD.
f.	What is the need of functional group protection in organic synthesis?
g.	Which heterocyclic nucleus is the part of structure of metronidazole and quinine?
h.	Name two drug containing purine heterocyclic nucleus?
i.	What is FGI?
j.	Define the terms Target Molecule and synthon.

SECTION B

2. Attempt any two parts of the following:

2 x 10 = 20

a.	Enlist the types of reaction mechanisms. Discuss the methods to determine the reaction mechanism.
b.	Discuss mechanism and synthetic applications of any two named reactions. i. Baeyer-Villiger oxidation ii. Mitsunobu iii. Manich reaction
c.	Write one application for the following synthetic reagents (any five) i. Wittig reagent ii. Wilkinson reagent iii. BOP iv. Diazopropane v. Aluminium isopropoxide vi. DCC

SECTION C

3. Attempt any five parts of the following:

7 x 5 = 35

a.	Compare and contrast unimolecular and bimolecular nucleophilic substitution reaction.
b.	Write synthetic applications of any three named reactions i. Dieckman reaction ii. Vilsmeier-Haack reaction iii. Michael addition reaction iv. Brook rearrangement
c.	Elaborate the protection of hydroxyl group with suitable examples.
d.	Explain any two name reaction i. Pinner pyrimidine synthesis. ii. Combes quinoline synthesis iii. Bernthsen Acridine synthesis
e.	Write synthesis of any two drugs i. Promazine ii. Ketoconazole iii. Sulphamerazine
f.	Discuss the guidelines for disconnection of molecules with proper examples.
g.	Elaborate the strategies for synthesis of five and six membered rings.