

# MEDICINAL CHEMISTRY – II (GUESS PAPER 2025–26)

## SECTION A (10 × 2 = 20)

1. Define antineoplastic agents with examples.
2. Write mechanism of action of Methotrexate.
3. Draw structure of Captopril.
4. What are sulfonylureas?
5. Define antihistaminic agents.
6. Write uses of Digoxin.
7. What are oral contraceptives?
8. Draw structure of Testosterone.
9. Define proton pump inhibitors.
10. Write examples of calcium channel blockers.

## SECTION B (Attempt any TWO – 2 × 10 = 20)

1. Classify diuretics. Explain SAR of thiazide diuretics with synthesis of chlorothiazide.
2. Define and classify antihistaminic agents. Explain structures and uses of first generation H<sub>1</sub> blockers.
3. Classify antidiabetic agents and explain SAR and MOA of sulfonylureas with synthesis of tolbutamide.
4. Classify antineoplastic agents and explain synthesis of mechlorethamine.

## SECTION C (Attempt any FIVE – 5 × 7 = 35)

1. Classify local anesthetics and explain SAR of benzoic acid derivatives.
2. Describe antihypertensive drugs with emphasis on ACE inhibitors.
3. Classify antineoplastic agents and explain alkylating agents.
4. Explain thyroid and antithyroid drugs with structures and uses.
5. Classify antianginal drugs and explain nitrates.
6. Discuss corticosteroids with structures of cortisone and prednisolone.
7. Classify antiarrhythmic drugs and explain Class I agents.

## ■ QUESTION FREQUENCY ANALYSIS (2019–2025)

Topic	Times Asked	Exam Weight
Antidiabetic agents (Sulfonylureas)	7 / 7	■■■■■
Diuretics (Thiazides)	6 / 7	■■■■■
Antihistaminic agents	6 / 7	■■■■
Antineoplastic agents	6 / 7	■■■■
Local anesthetics (SAR)	5 / 7	■■■■
Antianginal drugs	5 / 7	■■■■
Antihypertensive drugs (ACE inhibitors)	5 / 7	■■■■
Corticosteroids	4 / 7	■■■
Antiarrhythmic drugs	4 / 7	■■■