

GUJARAT TECHNOLOGICAL UNIVERSITY
PHARM.D YEAR-2 EXAMINATION – SUMMER - 2025

Subject Code: 828804**Date: 09-05-2025****Subject Name: Pharmacology-I****Time: 10:30 A.M. TO 1:30 P.M.****Total Marks: 70****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- | | | |
|------------|---|-----------|
| Q.1 | (a) Illustrate the major families of receptors and their signaling mechanism. | 06 |
| | (b) Briefly discuss phase 2 drug metabolism / biotransformation reactions. | 04 |
| | (c) Explain the various routes of drug administration. | 04 |
| Q.2 | (a) Classify adrenergic beta blockers. Discuss pharmacological actions and therapeutic effects of adrenergic beta blockers. | 06 |
| | (b) Describe the location and actions mediated by cholinergic receptor subtypes. | 04 |
| | (c) Classify drugs used for treatment of parkinsonism. Explain the mechanism of action of any one class. | 04 |
| Q.3 | (a) Discuss the mechanism of action, pharmacological actions, pharmacokinetics, and therapeutic uses of benzodiazepines. | 06 |
| | (b) Describe the pharmacological actions of morphine. | 04 |
| | (c) Write a note on cognition enhancer drugs. | 04 |
| Q.4 | (a) Classify anti-hypertensive drugs. Discuss the mechanism of action of ACE inhibitors and calcium channel blockers. | 06 |
| | (b) Illustrate with the help of a diagram the utility of digitalis in treatment of congestive heart failure. | 04 |
| | (c) Explain in brief the mechanism of action of different classes of anti-anginal drugs. | 04 |
| Q.5 | (a) Summarize the mechanism of action of various classes of drugs used for the treatment of type 2 diabetes. | 06 |
| | (b) Write a note on the synthesis and actions of thyroid hormones. | 04 |
| | (c) Define (a) mucolytics, (b) antitussives, (c) autocoids and (d) anti-histaminics. | 04 |
| Q.6 | (a) Enlist the drug classes for treatment of asthma. Discuss the pharmacology of leukotriene antagonists. | 06 |
| | (b) Compare the mechanism of action of nondepolarizing and depolarizing neuromuscular blockers. | 04 |
| | (c) Discuss the pharmacology of any one general anesthetic drug. | 04 |
| Q.7 | (a) Write a note on 5-HT receptors and actions of 5-HT. | 06 |
| | (b) Discuss PPAR alpha agonists in the treatment of hyperlipidemia. | 04 |
| | (c) Write a note on acute and chronic toxicity studies. | 04 |
