

POST GRADUATE EXAMINATION, JANUARY-2025

MD PHARMACOLOGY

(PAPER ONE)

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Give a critical account of different types of adverse drug reactions encountered in clinical practice. Describe the need, scope, methodology, and the implementation of Pharmacovigilance programme in a tertiary care hospital. **(20)**
- Q. 2.** Describe the following with suitable examples: **(10+10 = 20)**
- a. Ligand gated ion channels
 - b. P-Glycoprotein and drug resistance
- Q. 3. Describe briefly:** **(3 x 10 = 30)**
- a. Volume of Distribution & its clinical significance
 - b. Chronopharmacology and Chronotherapeutics
 - c. Bioavailability and Bioequivalence
- Q. 4. Write short notes on:** **(5 x 6 = 30)**
- a. 'Off-label' use of drugs
 - b. Drug Antagonism
 - c. Generic drug prescribing
 - d. Inverse agonists
 - e. Pharmacogenetics with examples

X

POST GRADUATE EXAMINATION, JANUARY-2025

**MD PHARMACOLOGY
(PAPER TWO)**

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Describe the pharmacology of 5-HT₁ receptor agonists and antagonists. (20)

Q. 2. Describe Dopamine Receptor Agonists and their therapeutic Potential. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Glycopeptide Antibiotics
- b. Fifth generation Cephalosporins
- c. Class III Antiarrhythmics

Q. 4. Write short notes on: (5 x 6 = 30)

- a. Nitazoxanide.
- b. Potassium sparing diuretics.
- c. Direct Thrombin Inhibitors
- d. Imatinib
- e. Smoking Cessation Drugs

X

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**MD PHARMACOLOGY
(PAPER THREE)**

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Describe the screening methods for evaluation of Antidepressant drugs. (20)
- Q. 2.** Describe the conduct of clinical trials in India and the controversies that surrounded the conduct of trials in the recent past. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- Acute toxicity studies.
 - Impact factor
 - Sample size calculation
- Q. 4. Write short notes on:** (5 x 6 = 30)
- Differences between parametric and non-parametric tests
 - Writhing in animal models
 - Recombinant technology in drug production
 - Eddy's hot plate
 - Roles and responsibilities of ethics committee

X

POST GRADUATE EXAMINATION, JANUARY-2025

**MD PHARMACOLOGY
(PAPER FOUR)**

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Describe the pathophysiology of Pain modulation with current and possible future targets of pain therapy. Discuss the drug therapy of Neuropathic pain. (20)
- Q. 2.** Describe the drug treatment of Insomnia and their limitations. Describe the upcoming newer agents for Insomnia. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- a. Recent advances in treatment of Congestive cardiac failure.
 - b. Recent advances in treatment MDR Tuberculosis
 - c. Newer oral anticoagulants
- Q. 4. Write short notes on:** (5 x 6 = 30)
- a. Neurosteroids
 - b. Botulinum toxin
 - c. Precision medicine
 - d. Endothelin antagonists
 - e. Serotonin Syndrome

X