

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[B.PHARM 0323]

MARCH 2023
(SEPTEMBER 2022 EXAM SESSION)

Sub. Code: 2044

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER IV

PAPER IV – PHARMACOLOGY I

Q.P. Code: 562044

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Define pharmacodynamics. Enumerate the various drug targets. Describe the structure and mechanism of activation of the G-protein coupled receptors.
2. Define neurohumoral transmission and neurotransmitter. Describe the various steps involved in the parasympathetic (cholinergic) neurotransmission with clear illustration.
3. Define opioids and mention the opioid receptors and opioid peptides. Describe the pharmacological effects, pharmacokinetic parameters, therapeutic uses and adverse effects of morphine.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Enumerate four examples each for various sources of drugs.
2. Write notes on enzyme induction and enzyme inhibition.
3. Preclinical evaluation of a new drug candidate.
4. Classify beta adrenoceptor antagonists. Mention the therapeutic uses of beta adrenoceptor antagonists.
5. Describe about the synthesis of glutamine neurotransmitter. Mention the various types of serotonin receptors.
6. Describe the mode of action and pharmacological actions of sodium valproate.
7. Describe the physiological effects of alcohol.
8. Classify antipsychotic agents. Describe the pharmacological effects of chlorpromazine.
9. Classify drugs used in the treatment of Parkinsonism. Enumerate the adverse effects of levodopa.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Routes of administration with 100% bioavailability.
2. Significance of plasma protein binding of drugs.
3. Significance of receptor internalisation.
4. Define drug-drug interactions. Give examples.
5. Mode of action and examples of adrenergic drugs used in benign prostatic hyperplasia.
6. Reason for using adrenaline along with local anaesthetics.
7. Classes of drugs that on gamma amino butyric acid receptor. Give examples for each.
8. Mechanism of action and examples for centrally acting skeletal muscle relaxants.
9. Examples and advantage of mono amine oxidase B inhibitors.
10. Define hallucinogens. Give examples.
