

PHARMACOLOGY-I

THEORY 3Hrs/Week

UNIT-I

1. General Pharmacology:

Introduction to pharmacology, Source of Drug, Routes of administration with special reference to its advantages and disadvantages.

Pharmacokinetics: Absorption, factors affecting drug absorption, distribution, metabolism and excretion of drug.

Pharmacodynamics: General principle and molecular aspects of drug action with special emphasis on receptors, receptor classification, Drug-receptor interaction, potentiation, antagonism phenomenon.

UNIT-II

2. Pharmacology of drugs acting on peripheral (autonomic) nervous system:

2.1. Neurohumoral transmission of autonomic nervous system.

Drugs acting on cholinergic system: Cholinergic drugs (parasympathomimetic), Anticholinergic drugs (parasympatholytic).

Drugs acting adrenergic system: Adrenergic drugs (sympathomimetic), Adrenergic blocking drugs (sympatholytic).

Drugs acting on autonomic ganglia: Ganglion stimulant and Ganglion blocking agent.

UNIT-III

3. Pharmacology of drugs acting on peripheral (somatic) nervous system:

3.1. Neurohumoral transmission of somatic nervous system.

Neuromuscular blocking agent and peripherally acting skeletal muscle relaxant.

Local anesthetics.

UNIT-IV

4. Pharmacology of drugs acting on central nervous system:

Neurohumoral transmissions in CNS with special emphasis on neurotransmitters like serotonin, dopamine, GABA, Glutamate.

General anesthetics.

Sedative and hypnotics, centrally acting muscle relaxants.

4.4. Anti-epileptics.

Opioid analgesics and antagonist.

Nootropic agents.

UNIT-V

5. Psychopharmacological agents:

Antipsychotics/Neuroleptics.

Antidepressant and anti-manic drugs.

Antiparkinsonian drugs