

RAJASTHAN UNIVERSITY OF HEALTH SCIENCE

D. Pharm IInd Year Syllabus

Sagar Pharmacy Collage

PHARMACOLOGY : THEORY – THEORY (ER20-21T)

Chapter No.	TOPICS
1	General Pharmacology <ul style="list-style-type: none"> • Introduction and scope of Pharmacology • Various routes of drug administration - advantages and disadvantages • Drug absorption - definition, types, factors affecting drug absorption • Bioavailability and the factors affecting bioavailability • Drug distribution - definition, factors affecting drug distribution • Biotransformation of drugs - Definition, types of biotransformation reactions, factors influencing drug metabolisms • Excretion of drugs - Definition, routes of drug excretion • General mechanisms of drug action and factors • modifying drug action
2	Drugs Acting on the Peripheral Nervous System <ul style="list-style-type: none"> • Steps involved in neurohumoral transmission • Definition, classification, pharmacological actions, dose, indications, and contraindications of <ul style="list-style-type: none"> (a) Cholinergic drugs (b) Anti-Cholinergic drugs (c) Adrenergic drugs (d) Anti-adrenergic drugs (e) Neuromuscular blocking agents (f) Drugs used in Myasthenia gravis (g) Local anaesthetic agents (h) Non-Steroidal Anti-Inflammatory drugs (NSAIDs)
3	Drugs Acting on the Eye <p>Definition, classification, pharmacological actions, dose, indications and contraindications of</p> <ul style="list-style-type: none"> • Miotics • Mydriatics • Drugs used in Glaucoma
4	Drugs Acting on the Central Nervous System <p>Definition, classification, pharmacological actions, dose, indications and contraindications of</p> <ul style="list-style-type: none"> • General anaesthetics • Hypnotics and sedatives • Anti-Convulsant drugs • Anti-anxiety drugs • Anti-depressant drugs • Anti-psychotics • Nootropic agents • Centrally acting muscle relaxants • Opioid analgesics

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5	Drugs Acting on the Cardiovascular System Definition, classification, pharmacological actions, dose, indications and contraindications of <ul style="list-style-type: none"> • Mydriatics • Anti-hypertensive drugs • Anti-anginal drugs • Anti-arrhythmic drugs • Drugs used in atherosclerosis and • Congestive heart failure • Drug therapy for shock
6	Drugs Acting on Blood and Blood Forming Organs Definition, classification, pharmacological actions, dose, indications and contraindications of <ul style="list-style-type: none"> • Hematinic agents • Anti-coagulants • Anti-platelet agents • Thrombolytic drugs
7	Definition, classification, pharmacological actions, dose, indications and contraindications of <ul style="list-style-type: none"> • Bronchodilators • Expectorants • Anti-tussive agents • Mucolytic agents
8	Drugs Acting on the Gastro Intestinal Tract Definition, classification, pharmacological actions, dose, indications and contraindications of <ul style="list-style-type: none"> • Anti-ulcer drugs • Anti-emetics • Laxatives and purgatives • Anti-diarrheal drugs
9	Drugs Acting on the Kidney Definition, classification, pharmacological actions, dose, indications and contraindications of <ul style="list-style-type: none"> • Diuretics • Anti-Diuretics
10	Hormones and Hormone Antagonists Physiological and pathological role and clinical uses of <ul style="list-style-type: none"> • Thyroid hormones • Anti-thyroid drugs • Parathormone • Calcitonin • Vitamin D • Insulin • Oral hypoglycemic agents • Estrogen • Progesterone • Oxytocin • Corticosteroids

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11	Autocoids <ul style="list-style-type: none"> • Physiological role of Histamine, 5 HT and Prostaglandins • Classification, clinical uses, and adverse effects of antihistamines and 5 HT antagonists
12	Chemotherapeutic Agents: Introduction, basic principles of chemotherapy of infections, infestations and neoplastic diseases, Classification, dose, indication and contraindications of drugs belonging to following classes: <ul style="list-style-type: none"> • Penicillins • Cephalosporins • Aminoglycosides • Fluoroquinolones • Macrolides • Tetracyclines • Sulphonamides • Anti-tubercular drugs • Anti-fungal drugs • Anti-viral drugs • Anti-amoebic agents • Anthelmintics • Anti-malarial agents • Anti-neoplastic agents
13	Biologicals : Definition, types, and indications of biological agents with examples