

## CONTENTS

---

Preface ..... (ix)

### Unit – 1 PHARMACEUTICS

1.1.	Introduction to Pharmacopoeia	1
1.2.	Liquid Dosage Forms	3
1.3.	Pharmaceutical Engineering	12
1.4.	Semisolid Dosage Forms	19
1.5.	Cosmetics	24
1.6.	Novel Drug Delivery System	29
1.7.	Pharmaceutical Calculation	31
1.8.	Aerosols	40
1.9.	Solid Dosage Forms	43
1.10.	Sterile Products	66
1.11.	Interfacial Phenomena	72
1.12.	Micromeritics	76
1.13.	Rheology	78
1.14.	Colloids	80
	<b>Pharmaceutics MCQs</b>	82

### UNIT – 2 HUMAN ANATOMY AND PHYSIOLOGY

2.1.	<b>Anatomy and Physiology</b> of - Skeletal System, Cardiovascular System, Haemopoietic system, Respiratory system, Urinary System, Muscular System, Central Nervous System, Automatic Nervous System, Sensory Organs, Digestive System, Endocrine System and Reproductive system.	101
	<b>Human Anatomy and Physiology MCQs</b>	120

### UNIT – 3 COMMUNITY PHARMACY AND MICROBIOLOGY

3.1.	Concept of health, Concept of disease, Natural history of diseases, the disease agents and Concept of prevention of diseases. Nutrition and health: Classification of foods, requirements, diseases induced due to deficiency of proteins, vitamins and minerals-	133
------	--	-----

	treatment and prevention. Demography and family planning: Demography cycle, fertility, family planning methods. First aid: Emergency treatment in shock, snake-bite, burns, heart disease, fractures and resuscitation methods, Elements of minor surgery and dressings.	
	General Microbiology & Identification of Bacteria, Assay of Antibiotics & Vitamins, Preparation of Sera & Vaccines, Sterilization, Different Disease & Its Causative Organisms, Bioconversions	
	<b>Community Pharmacy and Microbiology MCQs</b>	153

#### UNIT – 4 PHARMACEUTICAL ORGANIC AND INORGANIC CHEMISTRY

4.1.	Medicinal and Pharmaceutical uses of following class of Inorganic Compounds: Acidifying agents, Antacids, Protective and Adsorbents, Antimicrobials, Astringents. Dental Products, Respiratory stimulants, Expectorants & Emetics, Antidotes, Electrolytes. Inorganic official compounds of Iron, Iodine, Calcium, Ferrous Sulphate and Calcium Gluconate. Radio pharmaceuticals and contrast media- Radio activity, Radio isotopes and Radio opaque contrast media (Barium sulfate). Limit tests for Arsenic, Chloride, Sulfate, Iron and Heavy metals.	183
	<b>Pharmaceutical organic and inorganic chemistry MCQs</b>	204

#### UNIT - 5 & 6 PHARMACOLOGY AND MEDICINAL CHEMISTRY

5.1	Sources of drugs, Routes of administration of drugs, Various processes of absorption, metabolism, distribution and excretion of drugs. General mechanism of drug action and drug interactions. <b>Pharmacology of following class of drugs:</b> General anaesthetics, Analgesics, antipyretics and NSAIDS, Narcotic analgesics, Antirheumatic, Sedatives & Hypnotics, antipsychotics, anticonvulsants, analeptics, Muscle relaxants, anti-parkinsonism agents, Local anesthetics, Cholinergic drugs,	226
-----	---	-----

	Anticholinergic drugs, Adrenergic drugs and Adrenergic antagonists, Mydriatics, Respiratory stimulants, Bronchodilators, Nasal decongestants, Expectorants and Antitussive agents, Autocoids, Cardiotonics, Antiarrhythmic agents, Anti-anginal agents, Antihypertensive agents, peripheral Vasodilators. Haematinics, coagulants and anticoagulants, Haemostatics, Blood substitutes and plasma expanders, Diuretics and anti-diuretics, Hypoglycemic agents, Antithyroid drugs, sex hormones and oral contraceptives, corticosteroids, Anti-ulcer agents, Anti-diarrohoeals, Emetics, Anti-emetics, Antispasmodics. Urinary antiseptics, sulphonamides, penicillin, streptomycin, Tetracyclines and other antibiotics. Antitubercular agents, Antifungal agents, antiviral drugs, anti-leprotic drugs, Anthelmintic drugs, Chemotherapy of cancer.	
6.1	Drugs Acting on Autonomic Nervous System: Introduction	226
6.2	Drugs Acting on Somatic Nervous System	235
6.3	Drugs Acting on Central Nervous System	240
6.4	Antimicrobial Drugs	251
6.5	Autacoids and Related Drugs	266
6.6	Hormones and Related Drugs	272
6.7	Gastrointestinal Drugs	273
	<b>Pharmacology and Medicinal Chemistry MCQs</b>	276,291

### UNIT – 7 HOSPITAL PHARMACY

1.	Organization, Management and Functions of Hospital, Hospital Pharmacy Location, Layout, Flow chart of materials and men. Drug Distribution system in Hospitals for out-patients and inpatients. P.T.C. (Pharmacy Therapeutic Committee), Hospital Formulary system and their organization, functioning, composition. Drug Information service and Drug Information Bulletin. Surgical dressing like cotton, gauze, bandages and adhesive tapes including their pharmacopoeial tests. Disease, manifestation and pathophysiology of Tuberculosis, Hepatitis, Rheumatoid Arthritis, Cardiovascular diseases, Epilepsy, Diabetes, Peptic Ulcer, Hypertension.	300
----	--	-----

	Adverse Drug Reactions. Introduction, general treatment of poisoning, systemic antidotes. Symptoms and treatment of- Organophosphorous, heavy metal, Opioid, Barbiturate, atropine and paracetamol poisoning. Drug dependences, drug abuse, addictive drugs and their treatment, complications	
	<b>Hospital pharmacy MCQs</b>	320

### UNIT – 8 PHARMACOGNOSY

8.1	Adulteration and drug evaluation, significance of pharmacopoeial standards. Identification tests, therapeutic effects and pharmaceutical application of alkaloids, terpenoids, glycosides, volatile oils, tannins and resins. Occurrence, distribution, organoleptic evaluation, chemical constituents including tests of following categories of drugs- Laxatives, Cardiotonics, Carminatives & G.I. regulators, Astringents, Drugs acting on nervous system, Antihypertensive, Antitussives, Antitumor, Antileptotics, Antidiabetics, Diuretics, Antidysenterics, Antiseptics and disinfectants, Antimalarials, Oxytocics, Vitamins, Enzymes, Perfumes and flavoring agents. Pharmaceutical aids- Honey, Arachis oil, Starch, Kaolin, Pectin, Olive oil. Lanolin, Beeswax, Acacia, Tragacanth, Sodium Alginate, Agar, Guar gum, Gelatin. Miscellaneous- Liquorice, Garlic, picrorhiza, Dirscorea, Linseed, shatavari, shankhpushpi, pyrethrum, Tobacco. Study of source, preparation and identification of fibers used in sutures and surgical dressings-cotton, silk, wool and regenerated fibers	329
	<b>Pharmacognosy MCQs</b>	

### UNIT – 9 BIOCHEMISTRY

9.1	Vitamins	371
9.2	Enzyme and Hormones	378
9.3	Carbohydrates	380
9.4	Proteins	384
	<b>Biochemistry MCQs</b>	391

**UNIT - 10 PHARMACEUTICAL JURISPRUDENCE**

10.1	Pharmaceutical Legislation	398
10.2	Drug and Cosmetic ACT 1940 (Rules 1945)	402
10.3	The Pharmacy ACT, 1948	405
10.4	Narcotic and Psychotropic Substance Act and Rules	406
10.5	Drug (Price Control) Order DPCO (6 JUN 1995)	407
10.6	Drugs and Magic Remedies Act and Its Rules	408
10.7	Intellectual Property Rights (IPR)	411
10.8	Prevention of Cruelty to Animals ACT	415
10.9	Medical Termination of Pregnancy ACT	419
10.10	Code of Pharmaceutical Ethics	421
	Pharmaceutical Jurisprudence MCQs	422

**MOCK TESTS**

1.	Mock Test I	435
2.	Mock Test II	445
3.	Mock Test III	455