



SYLLABUS

THEORY

Historical development, branches and scope of Pharmacology. Sources and nature of drugs. Pharmacological terms and definitions. Principles of drug activity: Pharmacokinetics – Routes of drug administration, absorption, distribution, biotransformation and excretion of drugs. Pharmacodynamics – concept of drug and receptor, dose – response relationship, terms related to drug activity and factors modifying the drug effect and dosage. Fundamentals of drug – screening and assay of drugs. Adverse drug reactions, drug interaction, drug designing and development, bio prospecting of drugs. Introduction to biopharmaceutics and gene therapy. Drugs acting on digestive system: stomachics, antacids and antiulcers, prokinetics, carminatives, antizymotics, emetrics, antiemetics, purgatives, antidiarrhoeals, cholerectics and cholagogues, rumen pharmacology. Drugs acting on cardiovascular system: cardiac glycosides, antiarrhythmic drugs, vasodilators and antihypertensive agents, haematinics, coagulants and anticoagulants. Drugs acting on respiratory system: Expectorants and antitussives, respiratory stimulants, bronchodilators and mucolytics. Drugs acting on urogenital system: Diuretics, urinary alkalizers, and acidifiers, fluid therapy, ecobolics and tocolytics. Pharmacotherapeutics of hormones and vitamins. Drugs acting on skin and mucous membranes: emollients, demulcents and counter irritants. Bio – enhancers, immunostimulants and immunosuppressants. New drugs and drug formulations.

PRACTICAL

Pharmacy appliances. Principles of compounding and dispensing. Metrology: systems of weights and measures, pharmacy calculations. Pharmaceutical processes. Pharmaceutical dosage forms. Prescription writing, incompatibilities. Drug standards and regulations, Custody of poisons. Compounding and dispensing of powders, ointments, mixtures, liniments, lotions, liquors, tinctures, emulsions, and electuaries.