

Paper IV: Drugs and Pharmaceuticals (CHE-554)

BLOCK 1 : DRUG DISCOVERY, DESIGN AND DEVELOPMENT

Unit – 1 : Drug discovery, design and development

Unit – 2 : Concepts of receptors, agonists and antagonists

Unit – 3 : Drug development of Salbutamol, cimetidine and captopril

Unit – 4 : Structure activity relationship studies – I

Unit – 5 : SAR studies – II Development of oxaminiquine & SAR studies of Sulphonamides and benzepines.

BLOCK 2 : DRUGS ACTING ON DIFFERENT TARGETS – I

Unit – 6 : Combinatorial synthesis

Unit – 7 : Quantitative structure activity relationships – (QSAR)

Unit – 8 : Pharmacokinetics, prodrugs and clinical trials

Unit – 9 : Drugs acting on metabolic process

Unit – 10 : Drugs acting on cell walls and cell membranes

BLOCK 3 : DRUGS ACTING ON DIFFERENT TARGETS – II

Unit – 11 : Drugs acting on the nervous system

Unit – 12 : enzyme inhibitors

Unit – 13 : Drugs effecting cholinergic nervous system

Unit – 14 : Drugs acting on histamine receptors and ion channels

Unit – 15 : Drugs acting on genetic material

BLOCK 4 : MANUFACTURE AND ANALYSIS OF DRUGS

Unit – 16 : Introduction to chiral drugs

Unit – 17 : Synthesis of chiral drugs

Unit – 18 : Drugs and drug intermediate from fermentation

Unit – 19 : Drug analysis

Unit – 20 : Quality control methods in drug manufacturing and formulations