

PHARMACEUTICAL BIOCHEMISTRY

Unit 1

Classification of drugs based on sources: mode of administration, site of action, absorption of drugs, Drugs distribution and elimination, Role of kidney in elimination.

Unit 2

Drug metabolism: Chemical pathways of drug metabolism. Phase I and Phase II reactions, role of cytochrome P450, non-microsomal reactions of drug metabolism, drug metabolising enzymes.

Unit 3

Chemotherapy: Biochemical mode of action of antibiotics- penicillin and chloramphenicol. Action of alkaloids, antiviral and antimalarial substances. Biochemical mechanism of drug resistance.

Unit 4

Adverse responses and side effects of drugs: Allergy, Drug intolerance, Drug addiction, drugs abuses and their biological effects.

Unit 5

Anaesthetics: General and local, gaseous anaesthetics, ether and vinyl ether, halogenated hydrocarbons like chloroform, intravenous anaesthetic thiopentanesodium and cocaine. Antiseptics and disinfectants- Phenols and related compounds, formaldehyde and ethanol. Organic pharmaceuticals- their role as preservatives and food additives.

References

1. Principles of medicinal chemistry – W.O. Foye.
2. Pharmacology by Satoskar. A.
3. A text book of Pharmacology and Pharmacotherapeutics by R.S. Satoskar, S.D. Bandarkar Aina pure.