

MEDICINAL CHEMISTRY-I

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UNIT-I

- ① Define Biotransformation. Explain properties of drug metabolism including Phase I & Phase II reactions.
- ② Explain in detail about isosterism & bioisosterism in detail.
- ③ Define Geometrical isomerism in relation to affect biological activity.

UNIT-II

- ① What are Sympathomimetic Agents? Classify them & write SAR
- ② Define & Classify Adrenergic Antagonist / Anti-adrenergic drugs.
- ③ Discuss the SAR & MOA of Beta blockers. write the synthesis of Propranolol
- ④ Write SAR, MOA & synthesis of Phenylephrine or Salbutamol.
- ⑤ Explain biosynthesis & catabolism of Catecholamines.
- ⑥ Explain Adrenergic receptors & neurotransmitters.

UNIT-III

- ① Define & Classify Parasympathomimetic agents. Write its SAR also write chemical structure, MOA, synthesis & uses of Carbachol.
- ② Explain Cholinergic Neurotransmitter & cholinergic receptors
- ③ Write a note on indirect acting parasympathomimetic agents. give the synthesis of Neostigmine.
- ④ Write synthesis, MOA & uses of Acetylcholine & Ipratropium Bromide.

UNIT - IV

- ① Classify Sedative & Hypnotics, Outline synthesis, MOA, SAR & uses of Diazepam.
- ② Define MOA & SAR of Barbiturates, write synthesis of Barbitol.
- ③ Define & Classify Anticonvulsants, with its SAR & MOA, write synthesis, mechanism of action & uses of Phenytoin, Ethosuximide, Carbamazepine.
- ④ Write a short note on Antipsychotic drugs, Give SAR & MOA of Chlorpromazine Hydrochloride or Phenothiazines.

UNIT - V

- ① Classify Anti-inflammatory Agents / NSAIDs. Give synthesis, MOA & uses of Ibuprofen, Mefenamic acid.
- ② Give SAR of Morphine analogues, Give MOA, synthesis & uses of fentanyl Citrate, Methadone Hydrochloride.
- ③ Define & Classify General Anaesthetics. Write synthesis, MOA & uses of Halothane.
- ④ Differentiate b/w Narcotics & Non-Narcotic Agent.
- ⑤ Write a short note on ultra short acting barbiturates. Write synthesis, MOA & uses of Methohexital Sodium.
- ⑥ Write a short note on dissociative anaesthetics, give synthesis, MOA & uses of ketamine Hydrochloride.