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Chapter 1

General Pharmacology

Sources and ROA

Short Questions and Answers

Q. 1 Define Pharmacology.

Ans: Pharmacology is the science of drugs. It is defined as a science which deals with the mechanism of action, therapeutic uses, adverse effects and fate of drugs in human beings.

Q. 2 Define Pharmacokinetic.

Ans: It is the study of the absorption, distribution, metabolism and excretion of drugs, which means “what the body does to the drug”.

Q. 3 Define Pharmacodynamic.

Ans: It is a study of drugs, mechanism of action, pharmacological actions and their adverse effects, which means “what drugs does to body”.

Q. 4 What is drug?

Ans: A drug is a chemical substance used for the treatment, cure, prevention or diagnosis of a disease in human beings or animals.

Q. 5 Discuss various sources of drug.

Ans. The sources of drug could be natural and synthetic.

1. Natural sources: Drugs can be obtained from Plants, animals, minerals, microorganisms and from human source.
2. Synthetic: By recombinant DNA technology.

Q. 6 Enumerate drugs obtained from plants.

Ans: Plants source: e.g. atropine, morphine, quinine, chloroquine, digoxin, Pilocarpine, Physostigmine.

Q. 7 Enumerate drugs obtained from animal sources.

Ans: Animal source: e.g. insulin, thyroxine, heparin, antitoxic sera.

Q. 8 Name the drugs obtained from minerals sources.

Ans: Mineral source: e.g. Ferrous sulfate, magnesium sulfate, aluminium hydroxide.

Q. 9 Name the drugs obtained from micro-organisms sources.

Ans: Micro-organism source: e.g. Penicillin, Streptomycin, Tetracyclines, Cephalosporins.

Q. 10 Enumerate drugs obtained from synthetic sources.

Ans: Synthetic source: e.g. Aspirin, Paracetamol.

Q. 11 Enumerate drugs obtained from Human source.

Ans: Human source: e.g. Immunoglobulins from blood, growth hormone from anterior pituitary.

Q. 12 Enumerate drugs obtained by recombinant DNA technology.

Ans: Human insulin, hepatitis B vaccine.

Q.13 What is meant by generic name? Giving suitable examples.

Ans: It is assigned by a competent scientific body. e.g. the United States Adopted Names (USAN) council. E.g. aspirin.

Q. 14 What is meant by brand name? Giving suitable examples.

Ans: It is given by pharmaceutical manufacturers. A drug may have many brand names. e.g. Dispirin a brand name for aspirin, Crocin for paracetamol.

Q.15 Enumerate sources of drug information.

Ans: Pharmacopoeia and Formulary.

Q.16 What are 'essential drugs'? Giving suitable examples.

Ans: Essential drugs are those that satisfy the health care needs of majority of the population; and they should be available at all times in adequate amounts and in appropriate dosage forms. e.g. Atropine, Amoxycillin.

Q.17 Discuss (i). Prescription and (ii). Non-Prescription drugs.

Ans:

1. Drugs available only on prescription are called prescription drugs.
2. Drugs available without prescription are called over the counter drug.
E.g. Vitamins, antacids, analgesics like paracetamol.

Q. 18 Name oral solid dosage forms.

Ans: Powders, capsule, tablet, lozenges, spansule, pills.

Q. 19 Explain enteric coated Tablet.

Ans: The tablet is coated with a material that does not dissolve in the acidic medium of the stomach, the tablet disintegrates only on reaching the duodenum. e.g. sodium valproate.

Q. 20 Explain sustained release tablet.

Ans: These contain drug particles which are coated to dissolve at different rates. The active ingredient is made available for absorption over a longer period of time. The duration of action (2-6 hrs) of drugs can be extended to 12 hours or more. e.g. sustained release nifedipine.