
Hello Pharmacist
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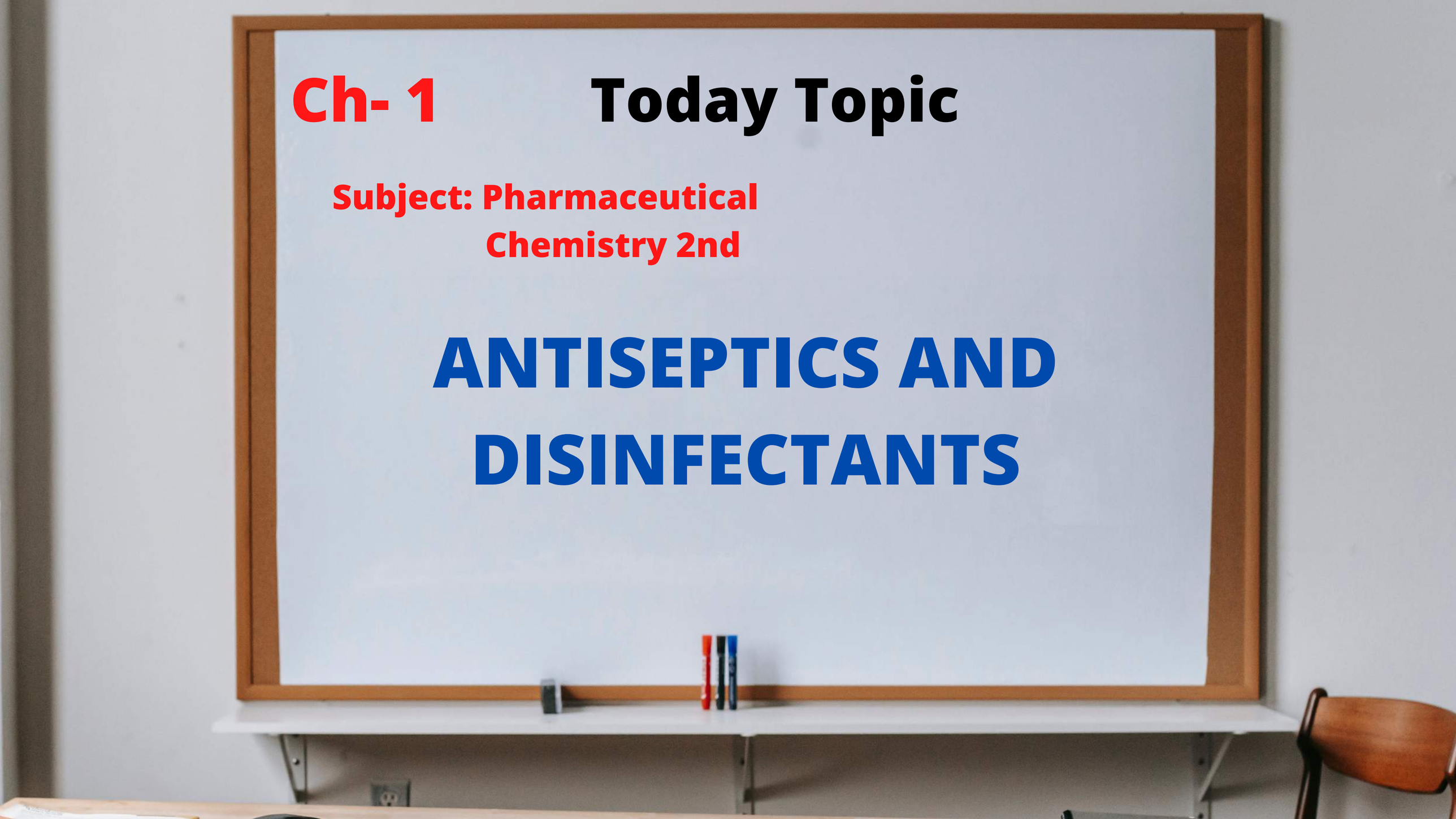
Noteskarts Pharma Notes


Ch- 1
Today Topic
Subject: Pharmaceutical Chemistry 2nd
ANTISEPTICS AND DISINFECTANTS

Antiseptics:-

- Antiseptic are the chemical sterilizing substances which destroy or prevent the growth of microorganisms when applied to the living tissues.

Antiseptics:-

- Antiseptics are applied on broken skin after burns and wounds or they are applied to intact skin before surgical operation or injections.
- Sometimes, they are also applied to mucus membrane like conjunctiva to prevent or treat superficial infections.

Disinfectants :-

- Disinfectants indicates distruction or to make a surface free from pathogenic organisms when applied to Non-living things.
- Due to their toxicity it is not directly applied on tissue but it is use of decontaminating drains and faucal matters and also for the sterilization of instruments and apparatus.

Classification of Antiseptic and disinfectant

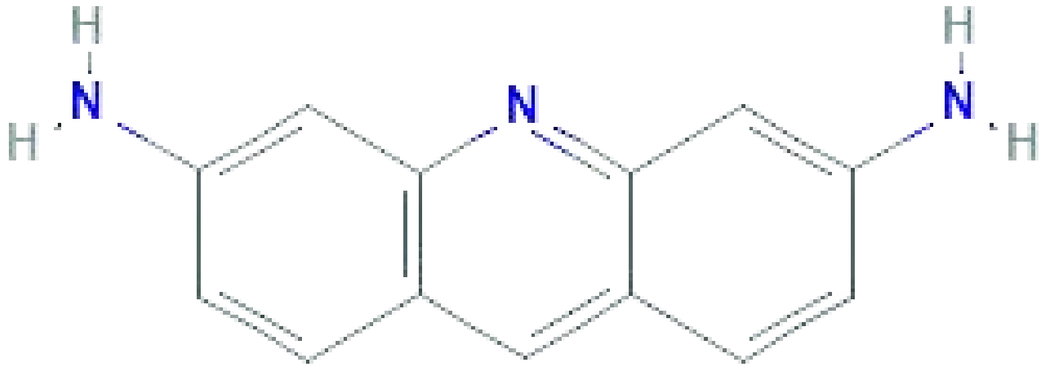
- Phenol and its derivatives—Phenol, cresol, Hexachlorophene, Chloroxylenol.
- Aldehyde and its derivatives— Formaldehyde.
- Halogens and its derivatives— Iodine, chlorine.
- Biguanides derivatives— Chlorhexidine.
- Quaternary ammonium derivatives— Cetrimide, Benzalkonium chloride

Classification of Antiseptic and disinfectant

- Metallic salts derivatives— Mercuric compounds, Silver and zinc salts.
- Oxidising agents— Hydrogen peroxide, potassium permanganate.
- Dyes— Gentian violet, Proflavine.
- Miscellaneous drugs— Nitrofurantoin, Nitrofurazone.

PROFLAVINE

- Molecular formula — C13H11N3
- Moler mass — 209.25 g/mol.
- IUPAC Name — 3,6-diamino acridine
- Chemical structure



Definition

Proflavine is an acriflaving derivatives having bacteriostatic action against many gram (+) bacteria.

It shows mutagenic effect by deletion or insertion of base pair in DNA molecules.

It can also induce double stranded breaks in DNA in the presence of light.

Properties

Physical properties-

- Colour and state — It is orange red or brown red crystalline powder.
- Odour and taste — It is odourless and shows bitter in taste.
- Solubility — It is soluble in water and ethanol and insoluble in benzene and ether.
- Melting point-281C Boilling point-338.6C And density about 1.1g/cm3.

Chemical properties

Proflavine chemically very active and reacts with the potassium ferricyanide and forms the ferriccyanide salts in the presence of acidic medium.

Pharmaceutical uses of proflavine

- It is most active against the gram (+) bacteria and show bacteriostatic action.
- It is used to treat local infection of throat,mouth and ears
- It is effectively used in the treatment of infected wounds,burn and skin infections
- It is also used as urinary antiseptic.

Stability and storage conditions

- It is hygroscopic in nature and highly sensitive against the light thus it is stored in tightly pack well closed containers.

Type of pharmaceutical formulations– Proflavine cream

Brand name —

- Profoliol,
- lorexane,
- acrilin,
- isoflavbase,
- protex-G.