ANTI TUBERCULAR AGENTS

CLASSIFICATION :. BASED ON THEIR DOSAGE REGIMEN

FIRST LINE DRUGS

ISONIAXID, STREPTOMYCIN. RIFAMPICIN.
ETHAMBUTOL. PYRAXINAMIDE

SECOND LINE DRUGS

ETHIONAMIDE
PAS P. AMINO SANCYNC ACID
OFLOXACIN - Fluord Quinolones
CIPROFLOXACIN - "
CYCLOSERINE - Amino acid derivative.
AMIKACIN
KANAMYCIN
VIOMYCIN
CAPREOMYCIN

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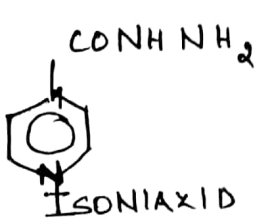
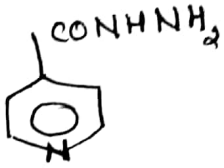
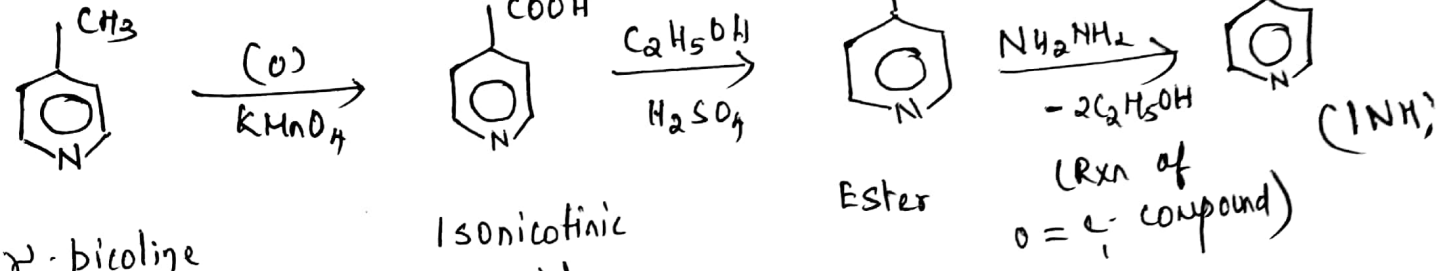




Pyridine derivative

M.O.A : Inhibits the synthesis of Mycolic acid essential for the cell wall synthesis of Bacteria

Syn



γ-picoline

Isonicotinic acid

Ester

(Rxn of O=C compound)

Use : Both Bacteriostatic and Bactericidal depending On the concentration.

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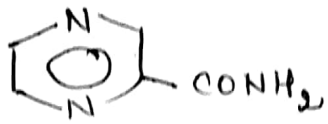
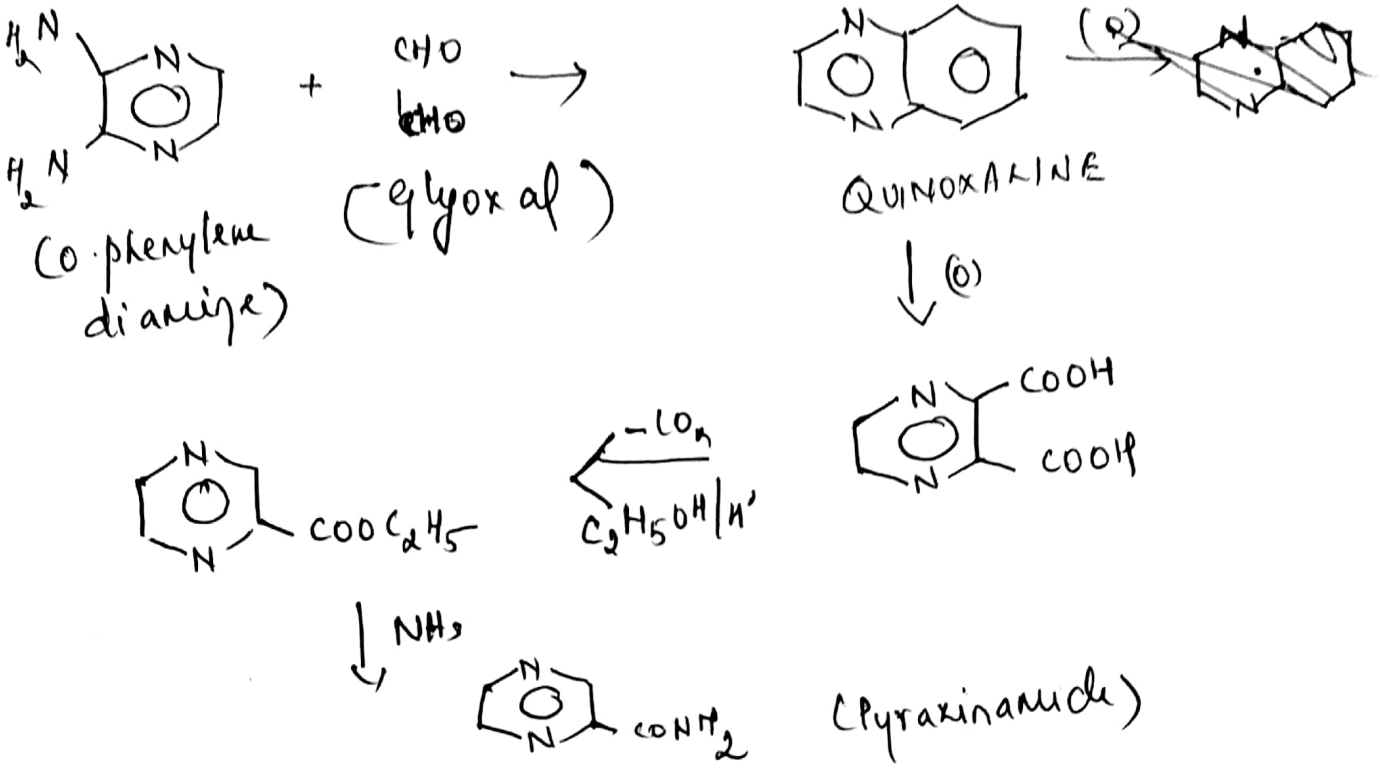
PYRAZINAMIDE



Pyrazine - 2. carboxamide

Syn :-



(o-phenylene diamine)

(Pyrazinamide)

M.O.A :-

Conversion of Pyrazinamide to pyrazinoic acid

Pyrazine carboxylic acid has bactericidal activity

To treat tuberculosis and Meningitis

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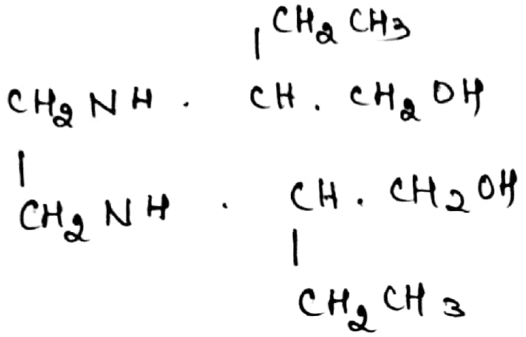
ETHAMBUTOL



22' 1,2 Alkane diyl diamino bis. 1- butanol HCl

M.O.A : Bacteriostatic drugs

inhibits the incorporation of mycolic acid into the bacterial cellwall.

RIFAMPICIN :

ANTIBIOTIC obtained from Streptomyces mediterani.

M.O.A : inhibits DNA dependant RNA polymerase of mycobacteria and inhibits the RNA synthesis and act as a Bactericidal drug

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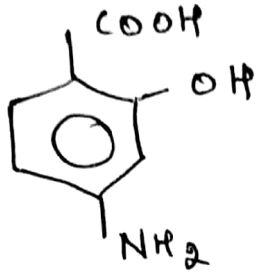
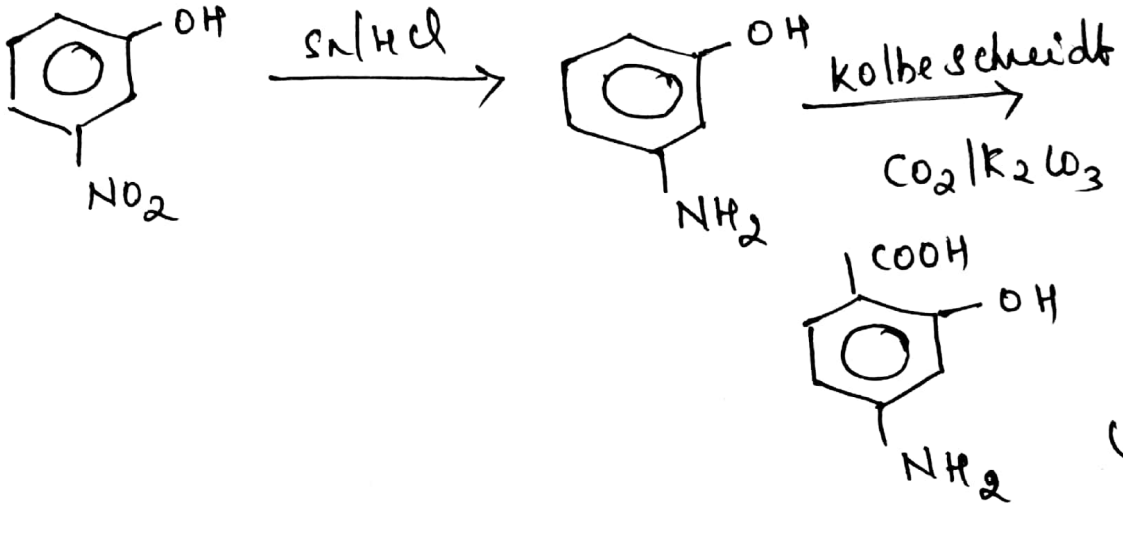
PAS (Para Amino Salicylic acid)



From m - nitrophenol



M.O.A : Antimetabolite

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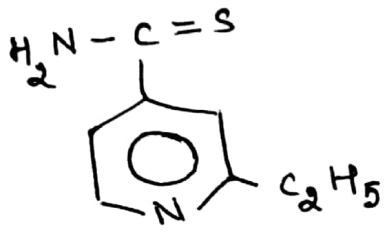
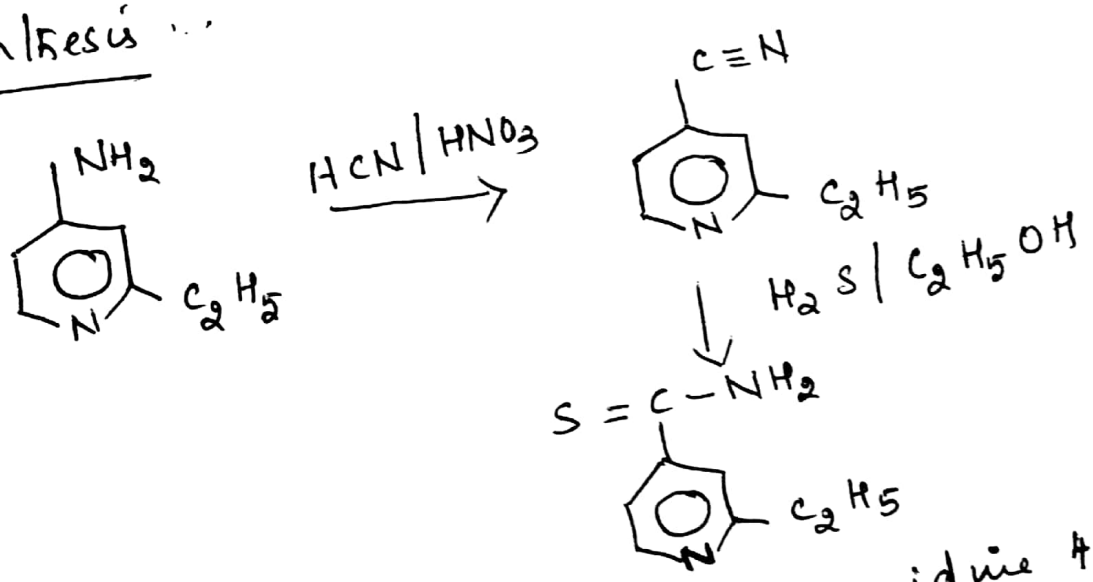
ETHIONAMIDE



Synthesis :



(2-Ethyl pyridine 4 carbothioamide)

M.O.A : Pro drug activated by an enzyme catalase peroxidase

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