**IndustrialMicrobiology**

Unit1.

Exploitation of microorganisms and their products, screening, strain developmentstrategies,immobilizationmethods,fermentationmedia,rawmaterialusedinmediaproduction, antifoamingagents,buffers,downstreamprocessing.

Unit2.

Fermentation equipment and its uses, fermentor design, Types of fermentors andfermentations- single, batch, continuous, multiple, surface, submerged and solidstate.

Unit3.

Industrialproductsfrommicroorganisms-antibiotics:productionofpenicillin,streptomycin.Interferons,vaccines,hormones,vitamins.

Unit4.

Enzymes from microbes: amylase, protease. Organic acids: citric acid, acetic acid,aminoacids:glutamic acid,lysine.

Unit5.

Production ofalcoholicbeverages:bearandwine,biofuels:ethanol,methane,biogas.

## References:

1. WhitakerandStanbury.PrinciplesofFermentationTechnology.
2. Casida.IndustrialMicrobiology.TataMcGrawHill.