BT 608 Microbial Biotechnology (3 0 0 6)

Pre-requisites: Nil

Principles of microbial biotechnology: taxonomy, structure and life cycle of representative groups of bacteria, viruses and eukaryotic organisms; physiology of microorganisms: adaptation to diverse environmental conditions; genome structure, mechanisms of gene expression, regulation and effect on metabolism; control of microorganisms, industrial and pharmaceutical applications of microorganisms; microbes in agrobiotechnology; microbial pesticides; integrated pest management, environmental biotechnology; food production involving microorganisms and their products, microbes in medical biotechnology, microbes in alternative energy, patenting microbial biotechnology.

References:

- 1. Lee Y. K., *Microbial Biotechnology: Principles and applications*. World Scientific Publisher, 2003.
- 2. Tortora, Funke and Case, *Microbiology, An Introduction,* 5th Edition. Benjamin/Cummings Publishing Company, Redwood City, CA, 1995.
- Board RG, Jones D, Skinner FA, Identification methods in applied and Environmental Microbiology, 1st Ed. Blackwell Science, 1992.
- 4. Funke, *Study Guide for Microbiology,* 5th Ed. Benjamin/Cummings Publishing Company, Redwood City, CA, 1995.