

**SARDAR PATEL UNIVERSITY**  
**Programme: BSC (MICROBIOLOGY)**  
**Semester: IV**  
**Syllabus with effect from: November 2012**

<b>Paper Code:</b> US04CMIC01	<b>Total Credit: 3</b>
<b>Title Of Paper:</b> General Microbiology	

Unit	Description in detail	Weighting (%)
<b>1</b>	<b>Medical Microbiology</b> Normal flora of human: Origin of the normal flora Distribution and occurrence of normal flora Germ free and Gnotobiotic life Pathogenic microorganisms: Pathogenicity Virulence Microbial virulence factors Antiphagocytic factors Exotoxin and Endotoxin Other virulence factors Infection and natural resistance to infection	
<b>2</b>	<b>Air Microbiology:</b> Micro flora of Air Enumeration of microorganisms in air Significance of microorganisms in air Control of Air borne microorganisms. <b>Industrial microbiology</b> Role of microorganisms in industry Characteristics of industrially important microorganisms Introduction to fermentor design	
<b>3</b>	<b>Control of Microorganisms by Physical agents</b> Fundamentals of control Condition influencing antimicrobial action Mode of action of antimicrobial action Physical agents: High temperature, Low temperature, Desiccation, Osmotic pressure, Radiation, Surfactants, Filtration.	
<b>4</b>	<b>Control of Microorganism by Chemical agents</b> Characteristics of an ideal antimicrobial chemical agents, Definition of terms Selection of chemical agent, Major groups of chemical Antimicrobial agents Evaluation of antimicrobial chemical agents	

**Basic Text & Reference Books:**

- Microbiology- Pelczar, Chan and Krieg, 5<sup>th</sup> Ed.
- General Microbiology Vol-II- Powar and Daginawala
- Industrial Microbiology- L. E. Casida.
- Fundamentals Principles of Bacteriology - A.J.Salle

