

**SARDAR PATEL UNIVERSITY**  
**Programme & Subject: M.Sc (Industrial Biotechnology)**  
**Semester: III**  
**Syllabus with effect from: June - 2011**

<b>Paper Code: PS03CIBT01</b>	<b>Total Credit: 4</b>
<b>Title Of Paper: Microbial Biotechnology</b>	

Unit	Description in Detail	Weightage (%)
I	General concept of Microbial biotechnology and Fermentation Economics Microbial Production of Antibiotics, Penicillin, Streptomycin, Enzymes Proteases, amylases Organic Acids, Citric Acid, Acetic Acid.	
II	Microbial Production of... Amino Acids, Glutamic acid, Lysine Industrial Alcohol Beer and wine Vitamins: Vit B12, B2 Ergot Alkaloids	
III	Biotransformation of Steroids Production of cell protein from bacteria, fungi and algae, Nutritional value and safety, Edible Mushrooms, Cultivation of edible and medicinal mushrooms.	
IV	Micro Expolysaccharides : Xanthan, Alginate. Microbial Flavours : Diacetyl, Methyl Ketones, Terpens, Vanillin. Fermented Food and dairy products Statter cultures, Science and technology of bread, Cheese and yogurt manufacture.	

**Basic Text & Reference Books:-**

- Botechnology : Rehm and Reid.
- Comprehensive biotechnology : Murray Moo Young.
- Microbial Techonology: Pepler
- Microbiology and technology of fermented foods: R. W. Hutkins. Blackwell pubshing.
- Topic related review papers

