

SARDAR PATEL UNIVERSITY
Programme: BSC (BIOTECHNOLOGY)
Semester: VI
Syllabus with effect from: June 2012

Paper Code: US06CBIT05	Total Credit: 3
Title Of Paper: Industrial Biotechnology	

Unit	Description in detail	Weighting (%)
1	Fermentation (definition and applications), media (crude and synthetic), and sterilization of media. Screening - primary and secondary. Strain improvement.	
2	Design of fermentor (aeration, agitation and body construction), Downstream processing - Filtration, centrifugation, cell disruption , precipitation & solvent extraction.	
3	Effect of aeration and agitation, methods of estimating C_{crit} and KL_a . Measurement of pH and temperature.	
4	Production of ethanol, cheese, beer, red & white wine, sparkling wine (champagne) Spoilage and preservation of food.	

Basic Text & Reference Books:

- Industrial microbiology - Whitaker
- Industrial microbiology - A H Patel
- General microbiology - Frobisher

