

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

Paper Code: US05CBIT05	Total Credit: 3
Title Of Paper: Environmental Biotechnology	

Unit	Description in detail	Weighting (%)
1	Types of pollutions (air,water& Land).Water Pollution-common pollutants, treatment of industrial and domestic waste water (primary, secondary and tertiary treatment) (BOD, COD, TOC, colour, odour, alkalinity & acidity.	
2	Bioleaching of metals (Copper)General properties of microorganisms involved in it. Types of bioleaching-Heap, Dump & in situ. Mechanism of leaching direct, Indirect and galvanic. Significance of bioleaching.	
3	Biomagnification, Biodegradation of xenobiotics (DDT, nitro aromatic compounds) introduction and application bioremediation & phytoremediation.	
4	Biosensor: types, principle, applications and limitations. Bioplastic Introduction, technology and applications.	

Basic Text & Reference Books:

- Environmental pollution control engineering - C S Rao
- Industrial microbiology - Whitaker
- Industrial microbiology - A H Patel
- General microbiology - Frobisher
- A text book of biotechnology - R C Dubey

