

**SARDAR PATEL UNIVERSITY**  
**Programme & Subject: B.Sc (Environmental Science)**  
**Semester: VI**  
**Syllabus with Effect from: November-2013**

<b>Paper Code: US06CENV05</b>	<b>Total Credit: 3</b>
<b>Title of Paper: Ethnobiology, Biodiversity, Forestry &amp; Wildlife</b>	

Unit	Description in detail	Weightage (%)
I	<b>Oceanography</b> Definition, Distribution of world land and water bodies, Oceans nomenclature; shape, size and volume. Relief of the ocean floor - continental shelf, continental slope, mid ocean ridge, gyot, sea mount, Deep sea plain & Trenches. Temperature and salinity of ocean water - horizontal and vertical, Tide-origin. Tidal waves - spring and neap tides. Oceanic deposits - classification.	<b>25%</b>
II	<b>Hydrology</b> Hydrology definition, evolution and importance, world hydrological cycle, Elements - precipitation, evaporation, transpiration, infiltration, run off and ground water, Ground water distribution and movements (Darcy's Law) and hydraulic conductivity.	<b>25%</b>
III	<b>Remote Sensing</b> Introduction, Definition, electromagnetic radiation, image - elements, Principle, Types of Remote sensing-Satellite Remote Sensing, satellite image and its interpretation, Indian satellite, Microwave Remote Sensing - RADAR.	<b>25%</b>
IV	<b>Application of Remote Sensing in Environment Science:</b> Application of remote sensing in agriculture, forestry, biodiversity management, weather monitoring, Atmospheric studies, Geospheric survey, Hydrospheric studies, Cryospheric studies, Environmental applications, Spatial information system, Land use and land cover mapping, wasteland management, natural disaster. <b>Geographic information System(GIS) - Definition, Components of GIS</b> Application of GIS, Global positioning System	<b>25%</b>

**Basic Text & Reference Books:**

- Biodiversity - K.C. Agrawal (1998). Agro Botanica
- Biodiversity in India - Florida Aspects - R.R.Rao (1994) Bishaen Singh Mahendra Pal Singh Dehradun
- Threatened plants in India - S. K. Jain and R.K.Satry Botanical Survey of India, Howarth.
- Biodiversity and its Conservation in India - S.S.Negi (1993) Indus Publishing Co. New Delhi
- Ethano botoby - Principles and Applications - C.M. Cotton (1996) Thon Midy and Sons
- A manual of Ethano botony - S.K.Jain (1995) Scientific Pub. Iodhpur
- Introduction to Animal Ecology and Environmental Biology : H.R.Singh (1989-90) S.Chand & Co.
- Ethnobiology - Rajiv K Sinha, Shweta K Sinha
- Wildlife management & Conservation - M.M.Raga
- Introduction to Wildlife management - Paul R. Krausman
- Concepts in wildlife management - B B Hosetti - 2005
- Wildlife ecology and management - Graeme Caughley, Anthony Ronald Entrican Sinclair

