

SARDAR PATEL UNIVERSITY
Programme: B.Sc (Environmental Science)
Semester: V
Syllabus with effect from: June 2013

Paper Code: US05CENV03	Total Credits: 3
Title of Paper: Environmental Pollution	

Unit	Description in detail	Weightage (%)
I	Air pollution - Definition, Sources, Effects of air pollution on human health and materials, Effects of Indoor air pollutants, Air quality standards, Sampling of pollutant-particulate matter, gases, vapour, Measurement of pollutants: Dust particles, measurement of smoke density, Stack monitoring, bio monitoring, Prevention and Control of air pollution (Venturi scrubber, Wet scrubber, Electrostatic precipitator, and Cyclone)	25%
II	Soil Pollution Sources of pollutant (pesticides, sewage, organic and inorganic contamination), Effects and control measures. Radiation Pollution - Basic Types of radiation, sources, effects of ionizing radiation, Control of Radioactive pollution, radiation protection, radioactive waste disposal methods	25%
III	Noise Pollution: Definition, Sources, measurement of sound, effect of noise on human health, noise pollution abatement and control Thermal Pollution: Definition, Sources, effect on man and aquatic ecosystem and control methods.	25%
IV	Vehicular Pollution: Introduction, Major pollutants of Automobile Emission, Impact of Automobile Pollutants. Indian scenario, Air quality with respect to SO ₂ , SPM, NO _x , Types of fuels used for vehicles, Automobile pollution abatement.	25%

Basic Text & Reference Books:

- Environmental Engineering - Devis Cornwell 3rd edition (1998). Mc Graw Hill.
- Environmental Engineering - Gerald Kiely (1998) Mc graw Hill
- Environmental Engineering - A global Prospective (2000) edt by Gary Vanloon & Duffy. Oxford Pub.
- Encyclopedia of Environmental pollution and Control - R.K.Trivedi
- An Introduction to air Pollution - R.K.Trivedi and P.K.God (1998) Technology Pub.
- Environmental Pollution control Engineering - C.S.Rao (1995) - Wiley Eastern ltd.
- Nature and properties of Soil - N.C.Brady (1997) Mc. Millan pub.
- Environmental Chemistry - A.K.De(1995), Widy Eastern.
- Chemistry for Environmental Engineering- Sawyer, Mac Carty, Partein (1994) Mc. Graw Hill
- Introduction to Environmental engineering and Sciences - Gilbert N. Masters (1998) Printice hall of India Pvt. Ltd New Delhi
- Air pollution (7 volume) A.C.Stern
- Air pollution Control Engineering - Noel De nevers - Second edition - Mc.Graw Hill international edition.
- Environmental Pollution - Management and Control for sustainable Development - R.K.Khitoliya, S.Chand and company, New Delhi

