SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc (Industrial Chemistry)
Semester: II
Syllabus with Effect from: June - 2015

Paper Code: PS02EICH06	**Total Credit: 4**
Title Of Paper: Air Pollution Control Technology	

Unit	Description in Detail	Weightage (%)
I	Definition, sources of air pollution- Natural and anthropogenic. Vehicular pollution and its control. Aeroallergens- sources, biology and health effects. Effects of pollution on humans, animals, plants and materials and services, ambient air quality standards and exhaust emission standards from vehicles. Principal atmosphere pollutants – particulate matter, CO_2, CO, HCs, NOx, acid rain asbestos and metals	25%
II	Environmental factors and air pollution – Heat, insulation, wind, precipitation, mixing height and topography, plume – behavior, Gaussian plum model and box model, sampling and measurement of air pollution – ambient air and stack. Indoor air pollution measurement and monitoring.	25%
III	Prevention and control pollution – Technology for particulate and gaseous pollution abatement. Air pollution episodes – Bhopal, Chernobyl, Los Angeles and London smog, Indonesian forest fire. Recent case studies on air pollution. Clean development mechanisms: carbon sequestration, carbon foot print, carbon trading and carbon markets	25%
IV	Statistics – sampling, data presentation techniques, frequency distribution, mean median, mode, standard deviation, standard error, t – test, probability, correlation and regression, analysis of variance	25%

Basic Text & Reference Books:-

- Air quality management,Stern A. C.
- Air pollution,Perkin H. G.,Mc grow hill
- Air pollution,Sharma B. K. and Kaur H
- Air pollution,Rao M. N. and Rao H. V. N.
- Biostatistics,K. S. Negi,AITBS publishers
- Biostatistics,P. N. Malhan,Himalayan publication house
- Sewage and air pollution engineering,Garg S. K.