LESSON PLAN

Name of the Faculty: Manmohan Singh

Discipline: Mech. Engg.

Semester: 1st

Subject: Environmental Studies and disaster management

Lesson Plan Duration: 16 weeks

Work Load (Lecture/Practical) per week (in hours): Lectures – 02

Week	Lecture Day	Theory
1st	1st	• **Unit – I Ecology –** Introduction • Basics of Ecology
	2nd	• Ecosystem
2nd	3rd	• Sustainable Development
	4th	• Sources & Advantages of Renewable & Non-renewable sources of energy • Disadvantages of Renewable & Non-renewable sources of energy
3rd	5th	• Rain water Harvesting • Deforestation – effects & control measures
	6th	• Class Test • **Assignment**
4th	7th	• **Unit – II Air & Noise Pollution –** Introduction • Air Pollution • Sources of Air Pollution, Effect of Air Pollution on Human Health & Economy
	8th	• Air Pollution Control Methods • Solution of problems • Noise Pollution – Sources, Units, Effects

5th	9th	• Acceptable Noise Level • Different method of minimizing noise pollution
	10th	• **1st Sessional Test**
6th	11th	• Analysis of Sessional test
	12th	• PTM • **Unit – III Water & Soil Pollution –** Introduction • Water Pollution- Cause & Sources • Impurities present in Water • Effect of Water Pollution on Human Health
7th	13th	• Concept of DO, BOD, COD
	14th	• Prevention of Water Pollution – Water treatment Processes • Sewage Treatment
8th	15th	• Water Quality Standard • Class Test
	16th	• **Assignment** • Soil Pollution- Sources, Effects, Control
9th	17th	• Types of Solid Waste • Disposal of Solid Waste • Solid Waste Management
	18th	• E-waste, E-waste Management • Solution of problems • Class Test
10th	19th	• **Unit – IV Impact of Energy Usage on Environment –** Introduction • Global Warming, Green House Effect • Depletion of Ozone Layer
	20th	• Acid Rain

		• Eco-friendly Material • Recycling of Material
11th	21st	• Concept of Green Buildings • Concept of Carbon Credit • Concept of Carbon footprint
	22nd	• **2nd Sessional Test**
12th	23rd	• Analysis of Sessional test
	24th	• PTM
13th	25th	• **Unit – V Disaster Management –** Introduction • Natural Disaster: Flood, Cyclone, Earthquakes & Landslides etc.
	26th	• Man- made Disaster: Fire, Industrial Pollution, Nuclear Disaster • Biological Disasters, Accidents(Air, Sea, Rail & Road) • Structural Failures(Building & Bridge), War & Terrorism etc.
14th	27th	• Disaster Preparedness Plan • Prediction, Early Warnings & Safety measures of Disasters
	28th	• Psychological response • Psychological Management (Trauma, Stress, Rumour, Panic)
15th	29th	• **Assignment** • Class Test • Solution of problems
	30th	• **3rd Sessional Test**
16th	31th	• Analysis of Sessional test

		• PTM
	32th	• Practice of sample papers (Revision)