

**20CE2702A - ENVIRONMENTAL MANAGEMENT AND AUDIT**

<b>Offering Branches</b>	CE		
Course Category:	Open Elective -IV	Credits:	3
Course Type:	Theory	Lecture-Tutorial-Practical:	3-0-0
Prerequisites:	20MC1301 - Environmental Science	Continuous Evaluation:	30
		Semester End Evaluation:	70
		Total Marks:	100

**Course Outcomes**

Upon successful completion of the course, the student will be able to:

<b>CO1</b>	<b>Illustrate</b> basic knowledge on solid waste management	K2
<b>CO2</b>	<b>Demonstrate</b> the handling of biomedical waste and its disposal	K3
<b>CO3</b>	<b>Distinguish</b> the E-waste sources, problems, control measures and E-waste rules	K3
<b>CO4</b>	<b>Outline</b> the basic principles of EIA.	K2
<b>CO5</b>	<b>Understand</b> the activities in environmental auditing.	K2

**Contribution of Course Outcomes towards achievement of Program Outcomes**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
<b>CO1</b>	2	2	2				2						2	2
<b>CO2</b>	2	2	2				2						2	2
<b>CO3</b>	3	3	3				2						3	2
<b>CO4</b>	2	2	2				2						2	2
<b>CO5</b>	2	2	2				2						2	2
<b>Avg.</b>	<b>2</b>	<b>2</b>	<b>2</b>				<b>2</b>						<b>2</b>	<b>2</b>

**1- Low**

**2-Medium**

**3-High**

**Course Content**

<b>UNIT-1</b>	<b>INTRODUCTION TO SOLID WASTE MANAGEMENT</b> Sources and types of municipal solid wastes-waste generation rates-factors affecting generation, characteristics, segregation of solid wastes – source reduction of waste – objectives of waste processing, elements of solid waste management –public role in solid waste management.	<b>CO1</b>
<b>UNIT-2</b>	<b>BIOMEDICAL WASTE MANAGEMENT</b> Definition-Sources-Classification of biomedical waste – Objectives of Biomedical waste management-segregation-containers for biomedical waste- Labelling Collection-Transport-Disposal methods	<b>CO2</b>
<b>UNIT-3</b>	<b>E-WASTE MANAGEMENT</b> E-waste: Sources- Types- components; Collection process- Segregation-Disposal methods; Effect on air, water and soil; Health hazards; Role of individual for E-waste management. Current E-waste Management Rules	<b>CO3</b>
<b>UNIT-4</b>	<b>ENVIRONMENTAL IMPACT ASSESSMENT (EIA)</b> Introduction-Definition-Scope-Objectives of EIA-Basic EIA Principles, Classification of EIA-Life Cycle Assessment-Environmental Policy of India. Baseline Data Acquisition: Environmental Inventory- Rapid EIA.	<b>CO4</b>
<b>UNIT-5</b>	<b>ENVIRONMENTAL AUDIT INTRODUCTION</b> Environmental audit Significance for Industry-Elements of Environmental audit. Process of environmental audit-Pre audit- Activity -Activities at site- Post audit.	<b>CO5</b>

**Learning Resources**

<b>Text Books</b>	1. Agarwal, K.M., Sikdar, P.K., Deb., S.C (2005) A Text Book of Environment, Macmillan India Limited.
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	<p>2. Sharma, R.D. (1976), Organisational Management, Light and Life Publishers, New Delhi.</p> <p>3. Varma and Agarwal, Theory &amp; practice of Management Forward Book Depot, New Delhi</p>
<b>Reference Books</b>	<p>1. Kovntz, H and C. Danvel (1978): Essential of management, second edition, Tata Mc Graw Hill publishing company, New Delhi.</p> <p>2. Erickson, P.A. (1977) Environmental Impact Assessment – Principles and Erickson, P.A. (1977)</p>
<b>E-Resources &amp; other digital material</b>	<p><a href="http://nptel.ac.in">http://nptel.ac.in</a></p>