

Dr G R DAMODARAN COLLEGE OF SCIENCE (AUTONOMOUS)

COIMBATORE- 641 014

COURSE : ALL UG COURSES

(Under Choice Based Credit System)

EFFECTIVE FOR THE STUDENTS ADMITTED DURING THE ACADEMIC YEAR 2020-2021

Semester	Course Code	Course Title	Credits	Theory/ Practical	Problems %	Theory %
SECOND	20200G	ENVIRONMENTAL STUDIES: ENVIRONMENTAL AWARENESS	2	Theory	-	100

Objective of the Course:

On successful completion of the course the students will be able to:

To make the students aware of the richness and greatness of our environment, to familiarize them about effect of environmental pollution in future, to acquire knowledge about environmental conservation.

1. UNIT I- Environment (Teaching Hours: 10)

Natural resources-Forests, Land (Ecology and Environment- PD Sharma, pg nos: 315-353)

Water – (Environmental chemistry- BK Sharma, pg. Nos: 3-16)

Plants, animals, man- (Ecology and Environment- PD Sharma, pg nos: 291- 314)

Urbanization, (pg. Nos: 210-213)

Population Explosion- - (Textbook of Environmental Studies, Erach Barucha) Family planning and welfare program

2. UNIT II- Ecosystem (Teaching Hours: 10)

Principles and concepts- (Ecology and Environment- PD Sharma, pg nos: 220- 266)

Components of ecosystem- (Ecology and Environment- PD Sharma, pg nos: 278-290)

Terrestrial - (Ecology and Environment- PD Sharma, pg nos: 278-290) Fresh

water- (Ecology and Environment- PD Sharma, pg nos: 278-290)

Brackish water and marine- (Ecology and Environment- PD Sharma, pg nos: 278-290)

Biotic and Abiotic factors- (Ecology and Environment- PD Sharma, pg nos: 278-290)

Production and productivity- (Ecology and Environment- PD Sharma, pg nos: 278-290)

Food chain- (Ecology and Environment- PD Sharma, pg nos: 278-290) Food web-

(Ecology and Environment- PD Sharma, pg nos: 278-290)

Pyramids and habitat approach- (Ecology and Environment- PD Sharma, pg nos: 278-290)

Organizational approach- (Ecology and Environment- PD Sharma, pg nos: 278-290)

Diversity of organisms.

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3. UNIT III- Energy system

(Teaching Hours: 10)

- Solar energy (Ecology and Environment- PD Sharma, pg nos: 374-388, Environmental Chemistry- BK Sharma, Section- IX)
- Radiation energy (Ecology and Environment- PD Sharma, pg nos: 374-388, Environmental Chemistry- BK Sharma, Section- IX)
- Nuclear energy (Ecology and Environment- PD Sharma, pg nos: 374-388, Environmental Chemistry- BK Sharma, Section- IX)
- Fossil fuel (Ecology and Environment- PD Sharma, pg nos: 374-388, Environmental Chemistry- BK Sharma, Section- IX)
- Hydroelectric energy (Ecology and Environment- PD Sharma, pg nos: 374- 388, Environmental Chemistry- BK Sharma, Section- IX)
- Wind energy (Ecology and Environment- PD Sharma, pg nos: 374-388, Environmental Chemistry- BK Sharma, Section- IX)
- Tidal energy (Ecology and Environment- PD Sharma, pg nos: 374-388, Environmental Chemistry- BK Sharma, Section- IX)

4. Unit IV- Environmental pollution

(Teaching Hours: 10)

- Aquatic pollution and Control – (Environmental Chemistry by BK Sharma, Section IV, pg. Nos: 3-12)
- Sources and types of water pollution- (Environmental Chemistry by BK Sharma, Section IV, pg. Nos: 3-12)
- Pesticides pollution- (Environmental Chemistry by BK Sharma, Section IV, pg. Nos: 3-12)
- Industrial pollution- (Environmental Chemistry by BK Sharma, Section IV, pg. Nos: 3-12)
- Sewage pollution- (Environmental Chemistry by BK Sharma, Section IV, pg. Nos: 3-12)
- Heavy metal pollution- (Environmental Chemistry by BK Sharma, Section IV, pg. Nos: 3-12)
- Effects of pollution on aquatic resources- (Environmental Chemistry by BK Sharma, Section IV, pg. Nos: 3-12)
- Air pollution and control- (Environmental Chemistry by BK Sharma, Section III, 3-100)
- Sources and types of air pollution- (Environmental Chemistry by BK Sharma, Section IV, pg. Nos: 3-12)
- Land pollution and control- (Environmental Chemistry by BK Sharma, Section V)
- Sources of land pollution- (Environmental Chemistry by BK Sharma, Section V)
- Agricultural and industrial-land pollution monitoring- (Environmental Chemistry by BK Sharma, Section V)
- Noise pollution-(Environmental Chemistry by BK Sharma, Section VIII) Thermal pollution- (Environmental Chemistry by BK Sharma, Section VII)
- Environmental protection, Laws and agency- (Ecology and Environment, PD Sharma, pg nos: 523-552, 483-489)

5. Unit V- Environment and Man

(Teaching Hours: 10)

- Human health hazards and public health importance- (Textbook of Environmental Studies, by Erach Barucha, pg. No: 213-226)
- Environmental education and awareness- (Ecology and Environment, PD Sharma, pg. nos: 531-552)
- Human involvement in environmental protection- Man and Biosphere Program (Ecology and Environment, PD Sharma, pg. nos: 531-552)

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Green house gases- (Environmental Chemistry, BK Sharma, Section III- Chapter 4, 5 and 6)
 Ozone layer depletion- (Environmental Chemistry, BK Sharma, Section III- Chapter 4, 5 and 6)
 Global warming and consequences- (Environmental Chemistry, BK Sharma, Section III- Chapter 4, 5 and 6)
 Displacement and resettlement due to big projects- (Environmental Chemistry, BK Sharma, Section III- Chapter 4, 5 and 6)
 Desertification- (Ecology and Environment, PD Sharma, pg. nos: 326-331)

Course Outcome mapping with Knowledge level

Course Outcome	CO Statement	Knowledge level
CO	To Understand the basic concepts of Environment, Environmental pollution in future, Environmental conservation.	K1,K2,K3,K4,K5

Note:
 K1- Remembering; K2 – Understanding; K3 – Applying; K4 – Analysing; K5 – Creating & Evaluating.

Course Outcome mapping with Programme outcome

Course outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO										

Indicators: 1. Reasonable 2. Significant 3.Strong

S.No.	Title	Text Books		Publication Year & Edition
		Author	Publishers	
1.	Environmental Awareness 200G (E-Book)	Department Publication	-	2020

Pedagogy: Lecture method, Seminar, Assignment, Interactive Lecture, Quiz

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