

SEMESTER II
ENVIRONMENTAL STUDIES
Computer Code 245209
4 Credits

ABOUT THE COURSE:

The course content aims to provide an overview to students about environment and its conservation.

External Exam: 75 Marks

Internal Exam: 25 Marks

Unit	TOPIC	Weightage	No. of Hours	No. of Credits
Unit I	<p>Environment Studies and Population</p> <p>Objective:</p> <p>To acquaint the students about environment studies and population explosion.</p> <p>Contents:</p> <p>Environment Studies: Definition – Scope – Importance.</p> <p>Population: Population growth – factors affecting density of population – population explosion – family welfare programme – Environment and human health.</p>	25	15	1
Unit II	<p>Objective:</p> <p>To make students aware about different resources and their conservation.</p> <p>Contents:</p> <p>Natural Resources</p> <p>Types – Renewable – Non-Renewable</p> <p>a. Forest Resources</p> <p>Use and overexploitation, Deforestation – Causes and Effects, Timber Extraction, Mining, Dams and their effects on forest and Tribal People.</p>	25	15	1

	<p>b. Water Resources</p> <p>Use and overexploitation of surface and ground water, Floods Droughts, Dams – Benefits and Problems, Water Conservation, Water Management.</p> <p>c. Food Resources</p> <p>World Food Problems – Over grazing, Effects of Modern agriculture, Fertiliser - Pesticide problem, Water-logging, Salinity.</p> <p>d. Energy Resources</p> <p>Growing Energy Needs, Renewable – Non-Renewable Energy Sources, Hydroelectricity.</p> <p>- Role of Individual in conservation of natural resources.</p> <p>- Equitable use of resources for sustainable lifestyle.</p>			
<p>Unit III</p>	<p>Objective:</p> <p>To make students understand the concept of ecosystem.</p> <p>Contents:</p> <p>Ecosystem</p> <p>- Concept of an ecosystem - Meaning</p> <p>- Structure and function of an ecosystem</p> <p>- Producers, consumers and Decomposers</p> <p>- Food chains, food webs and ecological pyramids.</p> <p>- Introduction, types, characteristic features</p> <p>Structure and function of the following ecosystem :</p> <p>a. Forest ecosystem, b. Grassland ecosystem c. Aquatic ecosystem (ponds, streams, lakes, rivers, ocean estuaries)</p>	<p>25</p>	<p>15</p>	<p>1</p>
<p>Unit IV</p>	<p>Objective: To make students aware about different types of pollution and its prevention.</p>	<p>25</p>	<p>15</p>	<p>1</p>

	<p>Contents:</p> <p>Environmental Pollution</p> <p>Definition – Types – Causes and Effects and Control measures of the following :</p> <p>a. Air pollution, b. Water pollution, c. Soil pollution, d. Noise pollution, e. Marine pollution.</p> <p>- Disaster Management – Floods, earthquake, cyclone and landslides.</p> <p>- Role of individual in prevention of pollution.</p>			
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Internal Assignment	Marks
<p>Field Work</p> <p>- Visit to local area to document environmental asset – rivers/forest/hill/mountain/grassland.</p> <p>- Visit to local polluted site – Urban / Rural / Industrial / Agricultural.</p> <p>- Study of common plants, birds.</p>	<p>25</p>

References:

1. Agarwal, K.C., 2008, Environmental Biology, Nidhi Publishers, Bikaner
2. Bharucha Erach, 2006, The Biodiversity of India, Mapin Publishing Pvt. Ltd. Ahmedabad.
3. Brunner R.C., Hazardous waste incineration, McGraw Hill Inc
4. Clark R., 2001, Marine Pollution, Oxford University Press
5. Jadhav H. & Bhosale, V.M, 2015, Environment Protection and Laws, Himalaya Publishing House, Pvt. Ltd., New Delhi
6. Odum E. P., 2004, Fundamentals of Ecology, (5th Revised Edition), Brooks/Cole
7. Mhaskar A.K, Matter Hazardous, Techno-Science Publications (Text Book).
8. Survey of the Environment, The Hindu (Magazine)
9. Trivedi R.K, Goel P.K, Introduction to Air Pollution, Techno-Science Publications (Text Book).