

Course related to Environment

Sem	Course Code	Foundation Course – I: Environmental Studies	Total Marks: 50		Hours Per Week	Credits
I	21ES01		CIA :-	ESE :50	2	2
Course Objectives:						
1. To identify the major challenges in environmental issues and find the possible solutions. 2. Develop socio-economic skills for sustainable development. 3. To analyze an overall impact of specific issues and develop environmental management plan.						
Course Outcomes (CO): On completion of the course, students should be able to						
CO 1	Compile different types of ecosystem and its energy flow.					K1 – K4
CO 2	Analyze the impacts of Natural resources					
CO 3	Apply the concepts of biodiversity and its conservation.					
CO 4	Create awareness on disaster management and measures to prevent pollution.					
CO 5	Outline the environmental policies and its practices.					
K1 :Recall; K2 :Understand; K3 :Apply; K4 :Analyze;						
Unit –I	Ecosystems					
Ecosystems: Meaning - Structure and function of Ecosystem; Types of Ecosystem; Structure and function of the following Ecosystem: (a) Forest Ecosystem (b) Grassland Ecosystem (c) Desert Ecosystem (d) Aquatic Ecosystems; Energy flow in an Ecosystem: Food Chains, Food Webs and Ecological Pyramids. Need for a Balanced Ecosystem and Restoration of degraded Ecosystem.						
Unit – II	Natural Resources: Renewable and Non-renewable Resources					
Land Resources and land use change; Land degradation, Soil erosion and desertification. Deforestation: Causes and impacts due to mining, Dam building on Environment, Biodiversity and Tribal Populations. Water: Use and over-exploitation of surface and ground water, Floods, Droughts, Rain water Harvesting. Energy Resources: Renewable and Non Renewable Energy Sources, Use of Alternate Energy Sources, growing energy needs.						
Unit – III	Biodiversity and Conservation					
Levels of Biological Diversity: Genetic, Species and Ecosystem diversity; Biogeographic zones of India; Biodiversity hot spots. India as a Mega-Biodiversity Nation; Endangered and Endemic species of India. Threats to biodiversity: Habitat loss, Poaching of Wildlife, Man - Wildlife conflicts, Biological invasions; Conservation of Biodiversity: In-situ and Ex-situ conservation of biodiversity.						
Unit – IV	Disaster Management & Environmental Pollution					
Disaster: Types – Natural and Manmade; Earthquakes, Volcanic eruption, Landslides, Flood, Drought, Fire, Nuclear, Chemical and Biological Disasters. Disaster Management: Floods, Earthquake, Cyclones and Landslides. Causes, Effects and Control measures of: (a) Air Pollution (b) Water Pollution (c) Soil Pollution (d) Noise Pollution (e) Thermal Pollution (f) Radioactive Pollution.						



Dr. N. RAMAN
 PRINCIPAL,
 KONGU ARTS AND SCIENCE COLLEGE
 (AUTONOMOUS)
 NANJANAPURAM, ERODE - 638 107.

Solid Waste Management, E -Waste Management - Sources, Characteristics & Disposal methods
Environmental Sanitation – Socioeconomic Benefits

Unit – V

Environmental Policies & Practices

Climate Change, Global Warming, Ozone layer depletion, Acid Rain and Impacts on Human Communities and Agriculture.

Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water(Prevention & control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act.

International Agreements: Montreal and Kyoto.

Public Awareness Campaign: Clean India Movement – Swachh Bharat Abhiyan.

Skill Development Activities :

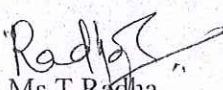
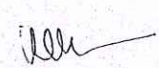
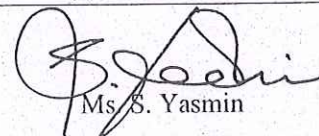
1. State the policies of Indian Government on Ecosystems
2. Submit the Asian Countries Ecosystems
3. List out the various Disaster Management Activities

TEXT BOOKS

1. Environmental Studies for Under Graduate Course, 1st edition, Bharathiar University, Coimbatore, 2004.
2. Environmental Studies (for Non-Engineering Students) by Prof. B.Sudhakara Reddy, Prof. T.Shivaji Rao, Prof. U.Tataji and Prof. K.Purushotham Reddy, published by Maruthi Publications, Guntur. (Prescribed by APSCHE).
3. Environmental Studies by Dr.M.Satyanarayana, Dr.M.V.R.K.Narasimhacharyulu, Dr.G.Rambabu and Dr.V.Viveka Vardhani, Published by Telugu Academy, Hyderabad.

REFERENCE BOOKS

1. Benny Joseph (2005), “Environmental Studies”, Tata McGraw – Hill Publishing Company Limited.
2. R.J.Ranjit Daniels and Jagadish Krishnaswamy, (2009), “Environmental Studies”, Wiley India Private Ltd., New Delhi.
3. S.M. Prakash, “Environmental Studies”, Elite Publishers Mangalore, 2007.

Course Designed By	Verified By	Approved By HOD
 Ms. T. Radha	 Ms. C. Radhamani	 Ms. S. Yasmin

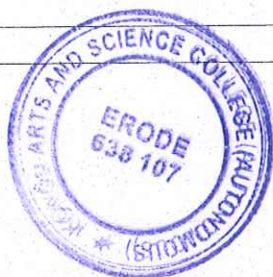
QUESTION PAPER PATTERN

SECTION – A

100 X ½ = 50 Marks

Answer ALL the questions

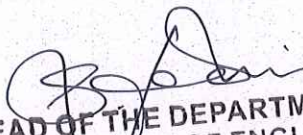
Multiple Choice Questions




Dr. N. RAMAN
PRINCIPAL,
KONGU ARTS AND SCIENCE COLLEGE
(AUTONOMOUS)
NANJANAPURAM, ERODE - 638 107.

Mapping of COs with POs and PSOs:												
CO	PO							PSO				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	M	M	S	S	L	S	M	M	M	S	S	S
CO 2	M	L	S	M	L	S	S	M	M	S	S	S
CO 3	M	L	S	M	M	S	S	M	M	S	S	S
CO 4	S	M	S	S	M	S	M	M	M	S	S	S
CO 5	M	M	M	S	M	S	S	M	M	S	S	S

S-Strong, M-Medium, L-Low


HEAD OF THE DEPARTMENT
DEPARTMENT OF ENGLISH
KONGU ARTS AND SCIENCE COLLEGE
(AUTONOMOUS)
ERODE - 638 107.




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