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Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2021

Course Name : Environmental Studies

Programme Name: B. Sc. (Physics, Chemistry, Maths)

Time: 03 Hrs

Course Code : HSFS 1003 Max. Marks : 100

Nos. of page(s) :3

: 1

Semester

Instructions: Please attempt all questions from Section "A", Section "B" and Section "C"

SECTION A - 20 Marks

- 1. Each Question will carry 5 Marks
- 2. Instruction: Complete the statement / Select the correct answer

SN	Questions	MM	CO
Q.1.	Fill in the Blanks: i) The area which is extremely rich in biodiversity, harbor great diversity of endemic species and at the same time they have been significantly degraded by human activities is known as biodiversity. ii) involves raising of trees for firewood ,fodder, agricultural implements and fruits on public, roads, rails and common land for the benefits of rural community. It reduces pressure on the existing forests. iii) The conversion of ammonia to nitrate is known as iv) The study which is carried out in order to take environmental clearance from Ministry of Environment is known as	4	CO1
Q.2.	Write T & F for the following i) China has the largest number multiple of small dam; 60,000 dams generate 13, 250 (30%) megawatts of China's electricity. ii) The soil formed by the deposition of silt brought by rivers is called red soil. iii) The Electrostatic Precipitator are widely used in cement, power and metallurgical industries because of their capabilities to treat large gas flows, under high temperature and corrosive atmosphere and remove submicron particles. iv) In India EIA was introduced as an administrative measures in 1998-99, initially for river valley projects and extending later to industrial projects.	4	CO2

Q.3.	Write full from of following abbreviations:	4	CO1
	i) EIS		
	ii) LCA		
	iii) BOD		
	iv) COD		
Q.4	Identify any five national and international organization which are working in the field of environmental protection and natural resource management.	4	CO2
Q.5.	Write any five UN Sustainability Goals (SDGs) set by United National Assembly in 2015.	4	CO1
Q.1.	SECTION B (10 x 4 = 40 Marks) (Attempt all question from this section however internal choice in Q.11. Define Solid Waste Management. Explain any four methods which are used for the disposal	10	1
Q.1.	of solid waste pollution.		CO3
Q.2.	Evaluate various principle and functions of air pollution control equipment which are used to control particulate pollutants generated from industrial emission with well labelled diagram.	10	CO4
Q.3.	Identify the various steps which you shall implement for taking environmental clearance for River Valley Project from MoEF and Climate Change.	10	CO4
Q.4.	Explain various types of biodiversity. Identity various measures which are used to conservation of Biodiversity.	10	CO3
	Or		
	What is biogeochemical cycles? Explain all the component of nitrogen cycle with suitable	10	
	diagram.		CO3
	SECTION-C SECTION -C (2 x 40 = 20 Marks) Attempt any one question from this section.	I	1
Q.1	Explain working principle of generating electricity by geothermal energy, wind energy, tidal energy and hydroelectric power plant with suitable schematic diagram. Explain environmental limitations, advantages and environmental implications of renewable energy resources.		CO3

Q.2	Describe various units of physical, chemical, biological treatment of Effluent Treatment Plant with the help of well labeled diagram to treat waste water generated from industries. Or		CO4
	What do you mean by TOR (Terms of Reference). Evaluate all the environmental components which are considered under TOR (Term of Reference) for Thermal Power Plant.	20	CO4