Question Paper Code

13714

B.E. / B.Tech. / M.Tech - DEGREE EXAMINATIONS, APRIL / MAY 2025

Second Semester

Computer Science and Engineering

(Common to Mechanical and Automation Engineering & M.Tech – Computer Science and Engineering)

20BSCY201 - ENVIRONMENTAL SCIENCE AND ENGINEERING

Regulations - 2020

	Regulations 2020				
Dur	ration: 3 Hours	Max. Ma	rks: 1	00	
$PART - A (MCQ) (10 \times 1 = 10 Marks)$					
	Answer ALL Questions	Marks			
	What is the term for the species list compiled by the IUCN that categorizes species be	ased 1	<i>K1</i>	CO1	
	on their risk of extinction? (a) Green List (b) Blue List (c) Red List (d) Black List				
`	How would you classify a species found only in one particular region?	1	<i>K1</i>	CO1	
	(a) Endemic (b) Exotic (c) Vulnerable (d) Rare				
	Which of the following is a primary cause of air pollution?	1	<i>K1</i>	CO2	
	(a) Planting trees (b) Burning fossil fuels (c) Recycling waste (d) Water conservation		K1	CO2	
	Which of the following methods is used to reduce the volume of waste by burning nigh temperatures?	it at ¹	ΚI	CO2	
	(a) Recycling (b) Incineration (c) Landfilling (d) Compos	ting			
	Which of the following effects are directly associated with mining activities?	1	<i>K1</i>	CO3	
	(a) Increase in green cover (b) Soil erosion and water contamination				
	c) Improved air quality (d) Reduced carbon emissions				
	Propose a solution to mitigate desertification in a semi-arid region.	1	K1	CO3	
	(a) Expanding grazing areas (b) Constructing roads (c) Practicing afforestation and controlled grazing (d) Reducing crop rotation cycles				
	Which gas is primarily responsible for trapping heat in the greenhouse effect?	1	K1	CO4	
	(a) Oxygen (b) Nitrogen (c) Carbon Dioxide (d) Hydrog	en			
8. I	n which year was the Environment (Protection) Act established?	1	K1	CO4	
`	(a) 1986 (b) 1972 (c) 1990 (d) 2000		***	G0.5	
	What is the main cause of population explosion in developing countries?	1	K1	CO5	
,	(a) Migration (b) High birth rate (c) Low death rate (d) Urbanization How could an individual contribute to achieving the SDGs?	1	<i>K1</i>	CO5	
	(a) By ignoring environmental issues (b) By conserving water and energy	,			
	(c) By using more plastic (d) By reducing recycling				
	PART - B $(12 \times 2 = 24 \text{ Marks})$				
11. 9	Answer ALL Questions Show how biome differs from an ecosystem.	2	K1	CO1	
	Differentiate between species diversity and ecosystem diversity.	2	<i>K</i> 2	COI	
	Define keystone species.	2	K1	CO1	
	Why nuclear hazards are so dangerous?	2	K1	CO2	
	Define marine pollution and name two sources of marine pollution.	2	K1	CO2	
	List out the environmental impact of nuclear holocaust.	2	<i>K1</i>	CO2	
	What is overgrazing?	2	<i>K1</i>	CO3	
	List out the environmental impact of waterlogging.	2	K1	CO3	
	What are the primary causes of ozone layer depletion?	2		CO4	
		-			
K1 – 1	Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create		137	14	

20.	List or	at the key urban problems related to energy consumption.	2	<i>K1</i>	CO4				
21.	Define	e sustainable development.	2	<i>K1</i>	CO5				
22.	How o	can family welfare programs help in managing population growth?	2	K1	CO5				
$PART - C (6 \times 11 = 66 Marks)$									
		Answer ALL Questions							
23.	a)	Discuss in detail the conservation of biodiversity by in situ method.	11	<i>K</i> 2	CO1				
OR									
	b)	Explain the various threats to biodiversity.	11	<i>K</i> 2	CO1				
24.	a)	Explain the causes, effects and control measures of air pollution.	11	<i>K</i> 2	CO2				
	OR								
	b)	Evaluate earthquake preparedness and management strategies.	11	<i>K</i> 2	CO2				
25.	a)	Discuss the environmental impacts of modern agriculture.	11	<i>K</i> 2	CO3				
OR									
	b)	State deforestation. Explain the various causes and consequences of deforestation.	11	K2	CO3				
26.	a)	Demonstrate the method of Rainwater harvesting.	11	<i>K</i> 2	CO4				
OR									
	b)	Discuss the causes and effects of global warming.	11	K2	CO4				
27.	a)	State AIDS. Discuss briefly on the modes of transmission of HIV and how it can be	11	K2	CO5				
		prevented.							
		OR							
	b)	Analyze the role of information technology in environmental monitoring and	11	<i>K</i> 2	CO5				
		protection.							
28.	a) (i)	Discuss the effectiveness of the Wildlife Protection Act in conserving biodiversity.	6	K2	CO4				
20.	, , ,	Define human rights and discuss their significance in modern society.	5	<i>K</i> 2	CO5				
	(11)	OR							
	b) (i)	Discuss the causes and effects of acid rain.	6	K2	CO4				
	, , ,	Define sustainable development. Explain the measures to attain sustainability.	5	K2	CO5				
	(11)	Define sustamable development. Explain the ineasures to attain sustamability.	-	-					