Q. Code:440980

Reg. No. | | | | | | | | | | | | | |

B.E. / B.TECH. DEGREE EXAMINATIONS, MAY 2024

Second Semester

GE18251 – ENVIRONMENTAL SCIENCE AND ENGINEERING

(Common to all branches)

(Regulation 2018/2018A)

TIME: 3 HOURS **MAX. MARKS: 100**

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO 1	Describe the importance of ecosystem, biodiversity and its protection.	**2**
CO 2	Implement the knowledge which requires optimum use of various natural resources for the conservation of natural resources.	**3**
CO 3	Classify the different type of pollution, their effects and control measures, Also apply the knowledge gained for disaster management.	**3**
CO 4	Describe the sustainable development, social issues, role of NGO's and various laws available in the country for environmental protection.	**2**
CO 5	Recognize the importance of women and child welfare, prevention of HIV/AIDS and usage of technology for environmental management.	**2**

PART- A (10 x 2 = 20 Marks)

(Answer all Questions)

		CO	RBT LEVEL
1.	Describe the ecological pyramid and mention its types.	**1**	**2**
2.	How would you describe the biodiversity hotspots?	**1**	**2**
3.	Differentiate between biomagnification and eutrophication.	**2**	**3**
4.	Identify the benefits of adopting renewable energy sources.	**2**	**3**
5.	Criticize the consequences of nuclear hazards.	**3**	**3**
6.	What do you deduce from Minamata disease?	**3**	**3**
7.	Describe the effects of Ozone Layer depletion.	**4**	**2**
8.	Define acid rain and list any two negative consequences.	**4**	**2**

9.	Categorize different forms of value education.		**5**	**2**	
10.	Write a brief remark about the doubling time of the human population.		**5**	**2**	

PART- B (5 x 14 = 70 Marks)

			Marks	CO	RBT LEVEL
11. (a)	Describe the components, characteristics, functions and energy flow of the forest ecosystem.		**(14)**	**1**	**2**
	(OR)				
(b)	**(i)**	Determine the key causes of human-wildlife conflict. Suggest two steps to resolve the problem.	**(7)**	**1**	**2**
	(ii)	Summarize the various strategies for Ex-situ conservation of biodiversity.	**(7)**	**1**	**2**
12. (a)	**(i)**	Investigate the environmental issues related with mining and overexploitation of mineral resources.	**(7)**	**2**	**3**
	(ii)	What is deforestation? Identify the different causes and impacts of deforestation.	**(7)**	**2**	**3**
	(OR)				
(b)	**(i)**	Analyze the implications of excessive groundwater use.	**(7)**	**2**	**3**
	(ii)	As a person, what role do you play in conserving natural resources in the face of depletion?	**(7)**	**2**	**3**
13. (a)	Interpret the causes, consequences, and control strategies for air pollution.		**(14)**	**3**	**3**
	(OR)				
(b)	Categorize the solid wastes. Describe the methods that can be applied for proper disposal of solid wastes.		**(14)**	**3**	**3**
14. (a)	**(i)**	Using a neat diagram explain the rooftop rainwater harvesting method.	**(7)**	**4**	**2**
	(ii)	Elaborate on any seven principles of green chemistry.	**(7)**	**4**	**2**
	(OR)				
(b)	**(i)**	Write a detailed note on global warming, its effects, and strategies to mitigate it.	**(7)**	**4**	**2**
	(ii)	Explain the salient features of the Wildlife Protection Act.	**(7)**	**4**	**2**
15. (a)	Discuss the impact of AIDS in developing countries, the causes for its spreading and suggest the various methods to control it.		**(14)**	**5**	**2**
	(OR)				

		Marks	CO	RBT LEVEL
(b)	Comment on the role of information technology in the environmental protection and human health.	**(14)**	**5**	**2**

PART- C (1 x 10 = 10 Marks)

(Q.No.16 is compulsory)

		Marks	CO	RBT LEVEL
16.	Illustrate the environmental and social impacts of a growing population. Explain how the implementation of a family planning program can mitigate the problems of population explosion.	**(10)**	**5**	**2**

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