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**B.E. / B.TECH. DEGREE EXAMINATIONS, MAY 2023**

Second Semester

**GE18251 – ENVIRONMENTAL SCIENCE AND ENGINEERING***(Common to all branches)***(Regulation 2018 / Regulation 2018A)****TIME: 3 HOURS****MAX. MARKS: 100**

Course Outcomes	Statement	RBT
CO1	Describe the importance of ecosystems, biodiversity and its protection.	2
CO2	Implement the knowledge which requires optimum use of various natural resources for the conservation of natural resources.	3
CO3	Classify the different types of pollution, their effects and control measures. Also apply the knowledge gained for disaster management.	3
CO4	Describe the sustainable development, social issues, role of NGO's and various laws available in the country for environmental protection.	2
CO5	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. Distinguish between endemic and endangered species.	1	2
2. How would you differentiate food chain and food web?	1	2
3. List any two reasons for ground water depletion.	2	1
4. Compare renewable energy and non-renewable energy.	2	2
5. What are the causes for thermal pollution?	3	1
6. How can the soil pollution be controlled?	3	1
7. Mention the reasons for acid rain.	4	1
8. Suggest any two salient features of water act.	4	2
9. How can be Dengue controlled?	5	1
10. How would you define the term population explosion?	5	1

**PART- B (5 x 14 = 70 Marks)**

	Marks	CO	RBT LEVEL
11. (a) (i) Explain the structure and functional aspects of forest ecosystem.	(7)	1	3
(ii) Elaborate on the in situ conservation of biodiversity.	(7)	1	3

(OR)

(b)	(i)	Summarize the structure and functional aspects of desert ecosystem.	(7)	1	3
	(ii)	Brief the ex situ conservation of biodiversity.	(7)	1	3
12. (a)	(i)	List out the disadvantages of the dam.	(7)	2	4
	(ii)	Examine the reasons for land degradation.	(7)	2	4
(OR)					
(b)	(i)	Explain the impact of mining on environment.	(7)	2	4
	(ii)	Outline the effects of modern agriculture.	(7)	2	4
13. (a)		Analyze the sources, effects and control of air pollution.	(14)	3	3
(OR)					
(b)		Discuss the sources, effects and control of water pollution.	(14)	3	3
14. (a)		Examine the process of resettlement and rehabilitation of people with a case study.	(14)	4	4
(OR)					
(b)		Interpret the salient features of Wild life (Protection) Act, 1972 and Forest Conservation Act, 1980.	(14)	4	4
15. (a)	(i)	Summarize the causes and control of Swine flu.	(7)	5	3
	(ii)	Explain the highlights of child welfare program.	(7)	5	3
(OR)					
(b)	(i)	Summarize the causes and control of Acquired Immuno deficiency Syndrome (AIDS).	(7)	5	3
	(ii)	Account for the importance of women welfare program.	(7)	5	3

**PART- C (1 x 10 = 10 Marks)**

(Q.No.16 is compulsory)

			Marks	CO	RBT LEVEL
16.		Analyze the importance of principles of green chemistry in environmental safeguard.	(10)	4	5

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