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B. E / B. TECH.DEGREE EXAMINATION, MAY 2023

Sixth Semester

OE18302 –INDUSTRIAL POLLUTION PREVENTION*(Chemical Engineering)***(Regulation 2018)****TIME:3 HOURS****MAX. MARKS: 100**

- CO1** Impart knowledge on basic environmental laws and relevant sections of the code of civil procedures.
- CO2** Discuss the fundamentals Rights-Directive principles of state policy-Article.
- CO3** Follow regulations for pollution abatement and waste minimization.
- CO4** Adapt recent legislation for water and air pollution.
- CO5** Perceive the skill on the Management and handling of Hazardous and Biomedical wastes.

PART- A (10x2=20Marks)

(Answer all Questions)

		CO	RBT LEVEL
1.	Distinguish between acute and chronic health effects that occur due to industrial pollution.	1	2
2.	Mention the significance of greenhouse gases emission in the economic development of a country.	1	3
3.	Explain the significance of the Declaration on Environment and Development.	2	2
4.	Relate the Acid rain and Deforestation which is one of the important environmental problems.	2	2
5.	List the greenhouse gases mentioned in the Kyoto Protocol.	3	2
6.	Every year Delhi suffers from the worst air pollution in India. Explain using standards.	3	3
7.	Comment on “People working at the electroplating industry will experience skin infection that can’t be ignored”.	4	2
8.	Demonstrate the importance of wastewater treatment plants in a city like Chennai.	4	2
9.	Outline the reason for the requirement of municipal solid waste management.	5	2
10.	Relate paint spillage to hazardous wastes.	5	2

PART- B (5x 14=70Marks)

		Mark	CO	RBT LEVEL
11. (a)	Elucidate with an example of how the judiciary system helped in protecting the environment and development of a local body in an Indian state.	(14)	1	2
	(OR)			
(b)	(i) Exemplify the necessity of jurisprudence in environmental protection on sovereign land.	(7)	1	2
	(ii) Discuss in detail the role of British governance in defining environmental protection regulation for the post-independence era.	(7)	1	2

12.(a)	Discuss the salient features of Article 48(A) and 51(A); along with Judicial Pronouncements.	(14)	2	3
(OR)				
(b)	(i) Explain the salient features of Indian Environmental policy for pollution control.	(7)	2	3
	(ii) Analyze the role of RTI (Right to Information) to get to know the principles, management, and enforcement of different policies.	(7)	2	3
13. (a)	(i) Elucidate the provisions in different jurisdictions with special reference to mandamus and certiorari for pollution abatement	(14)	3	3
(OR)				
(b)	(i) Discuss the delivery mechanism with the higher and lower levels of the judiciary system which gives the constitutional remedies.	(14)	3	3
14. (a)	(i) Compare and contrast the different water pollution control and prevention techniques, scheduled in Water Act.	(14)	4	4
(OR)				
(b)	(i) Analyze the restrictions under Air Act enforced by State Pollution Control Boards on their sovereign lands.	(9)	4	4
	(ii) Develop an air pollution control plan for an industrial area at Special Economic Zone (SEZ).	(5)	4	4
15. (a)	(i) Discuss various hazardous waste treatment technologies to mitigate any leakage in a friendly environment.	(7)	5	3
	(ii) Elucidate the role of Eco-labeling in waste management and handling.	(7)	5	3
(OR)				
(b)	(i) Illustrate the issues associated with noise pollution in a habitable zone due to close-by airports.	(6)	5	3
	(ii) Describe the role of Environment Impact Assessment and Environment Risk Assessment for sustainable development.	(8)	5	3

PART- C (1x 10=10Marks)

(Q.No.16 is compulsory)

		Marks	CO	RBT LEVEL
16.	A crude oil pipeline runs on ground from Nagapattinam seashore, Tamil Nadu to nearby distribution and storage station. Near seashore, it got punctured on one fine day and started leaking the crude oil. Decide a mitigation strategies explained for such scenario given by Indian Environmental policy.	(10)	3	5
