## VII SEMESTER B.TECH. (CHEMICAL ENGINEERING)

## END SEMESTER EXAMINATIONS, 28 NOV 2022

## ENVIRONMENTAL IMPACT ASSESSMENT AND MANAGEMENT PLAN [CHE 4056]

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Q.No		Marks	СО	РО	BL
1.	With a neat flow chart explain the process of the EIA process in India 2006 and give the timelines	3	2	7	1
2.	Write an essay on Environmental consciousness in the world	5	1	7	2
3	List the various tools of environmental management	2	1	7	1
4.	Write short notes on the Air Pollution Act, 1981. What are the important functions of the CPCB according to the air pollution act of 1981?	4	2	7	1
5	Write a short note on Environmental tax	2	2	7	2
6	What are the impacts of Nafra valley project that are of concern to aquatic ecology and what are the mitigation measures	4	4	7	4
7	What are the impacts of Nafra valley project that are of concern to aquatic ecology and what are the mitigation measures	4	4	7	3

8	Discuss the public perception of Nafra Valley project	2	4	7	3
9	List the different steps that can be taken in a coal based thermal power plant to mitigate air pollution?	4	4	7	3
10	Discuss the salient features of the Environmental protection Act	4	2	7	2
11	Write about the MC Mehta episode of water pollution	2	4	7	1
12	Write short notes on Environmental Management system ISO 14000	4	3	7	2
13	Explain Singapore model of Sustainable development	3	4	7	3
14	How is public consultation for EIA done	2	3	7	1
15	A city is located near an airport. The smelter stack is 300 m high and has a plume rise of 100m. It is emitting 10,000 g/s of SO2. Assume stability class is C (Refer chart in next page) and that wind speed is 3 m/s. A flight path for airport is perpendicular to the plume and 5km downwind of the smelter. The airport safety office has determined that it is unsafe for planes if the planes if the plume concentration > 500 $\mu$ g/m3. They have also decided that it is unsafe to fly under the plume. Assume Gaussian plume. Dispersion	5	4	7	4

coefficients for various stability criteria is given in the figure.		
What is the minimum altitude the plane can fly safely above the plume, without considering ground reflection of plume?		
What is the minimum altitude the plane can fly safely above the plume with considering ground level reflection?		
List steps you would propose to reduce the effect of the air pollution caused by the plant if the other contaminant from the plant includes Particulate matter		