

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

### END SEMESTER EXAMINATIONS, 27 DEC 2021

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

PART B

MAX MARKS: 20

##### Instructions to Candidates:

- ❖ Answer **TWO FULL** questions.
- ❖ Missing data may be suitably assumed.

1	a) List the different steps that can be taken in a coal based thermal power plant to mitigate air pollution?	3
	b) Write a brief essay on the history of EIA in the world.	3
	c) What are the major anticipated impacts and remedial measures on the aquatic ecology and water resources of Nafra valley project during the operational phase of the project in the EIA report? Based on the EIA report, would you give EC?	4

2	(a) Write short notes on Environmental taxation.	2
	(b) Write short notes on Environmental Management system	4
	(c) 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 SO <sub>2</sub> . 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 µg/m <sup>3</sup> . They have also decided that it is unsafe to fly under the plume. Assume Gaussian plume  What is the minimum altitude the plane can fly safely above the plume, without considering ground reflection of plume? Dispersion coefficients are in figure below	4

