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## Fifth Semester B.E. Degree Examination, July/August 2022

### Industrial Pollution Control

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

#### Module-1

- 1 a. Describe the impact of carbon emission and global warming on mankind. (10 Marks)
- b. What are the functions of central and state pollution control boards? (10 Marks)

OR

- 2 a. Describe various water resources and types of water pollutants and their effects. (10 Marks)
- b. What are the different methods available for analyzing wastewater? (10 Marks)

#### Module-2

- 3 a. Explain the primary treatment methods of waste water. (10 Marks)
- b. Describe the advanced waste water treatment methods. (10 Marks)

OR

- 4 a. Explain the methods for recovery of valuable materials from process effluents. (10 Marks)
- b. Explain the secondary/biological treatment methods of waste water. (10 Marks)

#### Module-3

- 5 a. Write the classification and properties of air pollutants. (10 Marks)
- b. Discuss the effects of air pollution on human health and vegetation. (10 Marks)

OR

- 6 a. Write a note on photochemical smog with a neat flowchart. (10 Marks)
- b. Explain the air pollution laws and standards in India. (10 Marks)

#### Module-4

- 7 a. Explain the methods for ambient air sampling and stack sampling. (10 Marks)
- b. Explain cyclone separators with a neat diagram. (10 Marks)

OR

- 8 a. Explain the control equipments for particulate and gaseous pollutants. (10 Marks)
- b. With a neat sketch, explain the working principle of electrostatic precipitator. (10 Marks)

#### Module-5

- 9 a. Explain different methods of solid waste treatment with their merits and demerits. (12 Marks)
- b. How solid wastes are classified? Explain. (08 Marks)

OR

- 10 a. Write short notes on:
  - i) Noise exposure index
  - ii) Acoustical absorptive materials. (08 Marks)
- b. With a neat sketch, explain the treatment of solid waste by sanitary land filling method. (12 Marks)