

--	--	--	--	--	--	--	--	--	--

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

**Process Air Pollution and Control**

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.***Module-1**

- 1 a. Explain the structure and composition of atmosphere. (06 Marks)
- b. Explain the air pollution episodes. (07 Marks)
- c. Explain the air pollution sources responsible for urban air pollution. (07 Marks)

**OR**

- 2 a. Discuss air pollution effects on plants and animals. (08 Marks)
- b. Write a note on global climate change. (06 Marks)
- c. Write a note on air quality emission standards. (06 Marks)

**Module-2**

- 3 a. Explain various physicochemical processes governing the spread of air pollution. (08 Marks)
- b. Discuss different sources of air pollution. (06 Marks)
- c. Explain the transport of air pollution in local atmosphere. (06 Marks)

**OR**

- 4 a. Explain about sampling methods for air pollutants. (05 Marks)
- b. With neat sketch, explain plume behavior of stack. (15 Marks)

**Module-3**

- 5 a. Explain the factors that affects in selection of control equipment. (08 Marks)
- b. With neat sketch, explain the cyclone separators, discuss the advantages and disadvantages. (12 Marks)

**OR**

- 6 a. Explain the principle, operation and design of electrostatic precipitator. (12 Marks)
- b. Discuss the operational consideration and costing of air pollution control equipment. (08 Marks)

**Module-4**

- 7 a. Discuss the factors affecting selection of control of gaseous equipment. (08 Marks)
- b. Explain the design and operation of absorption column. (12 Marks)

**OR**

- 8 a. Write a note on: (i) Bio scrubber (ii) Bio filter. (10 Marks)
- b. Discuss the operational consideration for gaseous pollutant control equipments. (10 Marks)

**Module-5**

- 9 a. Explain the pollution by Automobiles. (10 Marks)
- b. Discuss the prevention and control of vehicular pollution in urban areas. (10 Marks)

**OR**

- 10 a. Discuss the methods in control of noise pollution. (10 Marks)
- b. Discuss about air pollution legislations and regulations. (10 Marks)