

# मोतीलाल नेहरू राष्ट्रीय प्रौद्योगिकी संस्थान इलाहाबाद प्रयागराज – 211004 [भारत]

## Motilal Nehru National Institute of Technology Allahabad Prayagraj - 211004, [India]

### Department of Chemical Engineering

Mid Semester (even) Examination (Session 2023-24)

Programme Name: B.Tech.

Course Code: CHN14106

Branch: Chemical Engineering

**Duration:** 90 Minutes

Course Name: Environmental Pollution

Monitoring & Control

Student Reg. No.:

Max. Marks: 20

#### Instructions:

1. Solve the questions as per the given sequence

2. Attempt all the questions

Question 1: (a): What are the sources of noise pollution? How is it going to effect human being?

3 Marks

(b): What are the existing typical radionuclides present in the environment and how is it effecting our critical organs by probable exposure?

3 Marks

### Question 2:

(a): What are the major sources of air pollution? How carbon monooxide will affect the respiratory system of human being?

3.5 Marks

(b): What are the five major points where air pollution can be controlled? Explain the role of incinerator for controlling gaseous pollutants.

3.5 Marks

### Question 3:

Question 3:

(a): What are the component of refuse and What are the major processes used for waste processing and handling?

3.5 Marks

(b): Explain the disposal of unprocessed refuse in sanitary landfill with a quality diagram.

 $3.5 \, \mathrm{Marks}$ 



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Motilal Nehru National Institute of Technology Allahabad Prayagraj - 211004, [India]

#### Department of Chemical Engineering

End Semester (even) Examination (Session 2023-24)

Programme Name: B.Tech. Course Code: CHN14106

Branch: Chemical Engineering

Duration: 150 Minutes

Semester: IV

Course Name: Environmental Pollution

Monitoring & Control Student Reg. No.: Max. Marks: 40

#### Instructions:

1. Solve the questions as per the given sequence

2. Attempt all the questions

#### Question 1:

(a): Write the classification of Pollution and Pollutants. What kind of the monitoring systems are used for environmental analysis of pollutants?

3 Marks

(b): What are the standards followed for sewage and trade effluent discharged into streams in india?

3 Marks

#### Question 2:

(a): Write the classification of air pollution sources? What are the emerging new aeras of air pollution control in india?

3 Marks

(b): What is basic concept of meteorology? Explain horizontal and vertical dispersion of pollutants in detail.

3 Marks

#### Question 3:

(a): Explain physical and chemical water-quality parameters in detail.

3.5 Marks

(b): What are the important wastewater contaminants? Explain their source, environmental significance and their unit operations, unit processes of wastewater treatment systems.

3.5 Marks

#### Question 4:

(a): What are the four criterias for defining hazardous waste? How its processing and handling are carried out?

3.5 Marks

(b): Explain recovery methods of materials from refuse in detail.

3.5 Marks

#### Question 5:

(a): What is tanning process in leather industry? How it is generating pollution in the environment and What can be done to control pollution from tannery industry?

3.5 Marks

(b): What are the major gaseous effluents from fertilizer industry? Explain the methods for pollution control of gaseous effluents.

3.5 Marks

#### Question 6:

(a): Describe the causes and effects of marine pollution.

3.5 Marks

(b): What are the major sources of thermal pollution and explain the thermal pollution control technology?

3.5 Marks