

**Code No: RT32016A**

# R13

SET - 1

**III B. Tech II Semester Regular/Supplementary Examinations, April- 2017**  
**ENVIRONMENTAL POLLUTION AND CONTROL**  
**(Civil Engineering)**

Time: 3 hours

Maximum Marks: 70

**Note: 1. Question Paper consists of two parts (Part-A and Part-B)**

2. Answering the question in **Part-A** is compulsory

3. Answer any **THREE** Questions from **Part-B**

\* \* \* \* \*

**PART -A**

- 1 a) Enumerate the various methods of controlling gaseous emission. [4M]
- b) State the significance of recirculation of wastes. [3M]
- c) What are the various characteristics of solid wastes? [4M]
- d) List out the rural sanitation methods for hospitals. [3M]
- e) Classify the various hazardous wastes. [4M]
- f) Discuss the various factors governing the sustainable development. [4M]

**PART –B**

- |   |  |      |
|---|--|------|
| 2 | a) As per IS: 14000 codal provisions, discuss the ways of reducing the industrial noise and pollution.                 | [8M] |
|   | b) Discuss various causes, effects and control measures of Air Pollution.  | [8M] |
| 3 | a) Explain the salient features of Neutralization.   | [5M] |
|   | b) What are the various Treatment units provided for industrial wastewater treatment? Explain each with a neat sketch. | [8M] |
|   | c) State the sources of Industrial wastewater.   | [3M] |
| 4 | a) Give the detailed structure of Municipal solid waste and explain each in accordance to the present day scenario.    | [8M] |
|   | b) Discuss the sources, causes and effects of waste on health.   | [8M] |
| 5 | a) Write a detailed note on the characteristics and effects of waste from social gatherings.                           | [8M] |
|   | b) Highlight the detailed classification of Sanitation system.   | [8M] |
| 6 | a) By means of neat sketch, explain in about Landfill process of Hazardous Waste.                                      | [8M] |
|   | b) Discuss the various principles and strategies followed for Hazardous waste management.                              | [8M] |
| 7 | a) Explain how the barriers and strategies help to achieve sustainable development with any suitable examples.         | [8M] |
|   | b) Discuss in detail about various components and elements of Sustainable development                                  |      |

\*\*\*\*\*

Code No: RT32016A

**R13**

SET - 2

**III B. Tech II Semester Regular/Supplementary Examinations, April- 2017**  
**ENVIRONMENTAL POLLUTION AND CONTROL**  
**(Civil Engineering)**

Time: 3 hours

Maximum Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)  
2. Answering the question in **Part-A** is compulsory  
3. Answer any **THREE** Questions from **Part-B**

\*\*\*\*\*

**PART -A**

- |   |    |  |      |
|---|----|--|------|
| 1 | a) | What are the various causes of Air pollution?                                | [3M] |
|   | b) | State the significance of proportioning in Industrial wastewater management. | [4M] |
|   | c) | Enlist the basic characteristics of solid waste management.                  | [4M] |
|   | d) | Enumerate the objectives of Environmental Sanitation.                        | [4M] |
|   | e) | What are the various control methods followed by Hazardous waste.            | [3M] |
|   | f) | State the indicators of Sustainable development.                             | [3M] |

**PART -B**

- |   |    |  |       |
|---|----|--|-------|
| 2 | a) | Discuss in detail about the sources, effects and control measures of Noise Pollution.                    | [8M]  |
|   | b) | Explain any two methods of controlling Gaseous Emissions.  | [8M]  |
| 3 | a) | Explain the ways of strength reduction of industrial wastewater in detail.                               | [3M]  |
|   | b) | What is Neutralization? Explain various methods of the same  | [8M]  |
|   | c) | Enlist the various strategies to be followed for pollution control.                                      | [5M]  |
| 4 | a) | In the present day scenario, explain the importance of solid waste management.                           | [6M]  |
|   | b) | Explain in detail the various processes carried out during the solid waste management.                   | [10M] |
| 5 | a) | List out the various components of Environmental Sanitation and explain any two in detail.               | [10M] |
|   | b) | Discuss the types and characteristics of Refuse Disposal.  | [6M]  |
| 6 | a) | Enumerate the sources and effects of Nuclear Wastes.   | [8M]  |
|   | b) | Discuss the characteristics and treatment methods followed for Chemical wastes.                          | [8M]  |
| 7 | a) | Define Sustainable development and highlight the nature and consequence of Environmental sustainability. | [8M]  |
|   | b) | Differentiate between Development and Sustainable development.   | [8M]  |

\*\*\*\*\*

Code No: RT32016A

R13

SET - 3

**III B. Tech II Semester Regular/Supplementary Examinations, April- 2017**  
**ENVIRONMENTAL POLLUTION AND CONTROL**  
**(Civil Engineering)**

Time: 3 hours

Maximum Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)  
2. Answering the question in **Part-A** is compulsory  
3. Answer any **THREE** Questions from **Part-B**

\*\*\*\*\*

**PART -A**

- 1 a) Highlight the effects of Noise Pollution. [3M]
- b) List the standard range of some important effluents of Industrial wastewater. [4M]
- c) State the necessity of solid waste management. [4M]
- d) Enlist the various methods of Excreta Disposal and explain any one method. [5M]
- e) Differentiate between the characteristics of Biomedical and Chemical wastes. [3M]
- f) Define Economic Sustainability as a pillar to sustainable development. [3M]

**PART -B**

- 2 a) Explain the principle involved in the analysis of any two Air Pollution devices. [8M]
- b) Along with the respective equations, discuss how do you estimate the cycle time of noise pollution, speed and sound pressure levels. [8M]
- 3 a) Explain the various characteristics of industrial wastewater. [8M]
- b) State the significance and working principle of Equalization tanks with a neat sketch. [8M]
- 4 a) Describe the various environmental benefits achieved because of solid waste management. [8M]
- b) State and explain about the hierarchy of solid waste management. [8M]
- 5 a) Enumerate the characteristics of wastewater coming from Schools and Institutions. [8M]
- b) Discuss in detail about any two low cost sanitation methods. [8M]
- 6 a) Explain in brief about management techniques and expertise required for the treatment of Hazardous wastes. [8M]
- b) Highlight the impacts due to disposal of electronic wastes to the climatic conditions. [8M]
- 7 a) By means of an example explain how cleaner production can be achieved by attaining sustainable development. [8M]
- b) What is the change that is expected in sustainable development through Industrialization? Explain. [8M]

\*\*\*\*\*

Code No: RT32016A

**R13**

SET - 4

**III B. Tech II Semester Regular/Supplementary Examinations, April- 2017**  
**ENVIRONMENTAL POLLUTION AND CONTROL**  
**(Civil Engineering)**

Time: 3 hours

Maximum Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)

2. Answering the question in **Part-A** is compulsory

3. Answer any **THREE** Questions from **Part-B**

\*\*\*\*\*

**PART -A**

- 1 a) Enlist the various measurement methods of Noise Pollution along with the standards. [4M]
- b) Highlight few strategies to be followed to control industrial wastewater pollution. [4M]
- c) State the fundamentals of land filling. [4M]
- d) Define Sanitation and Sanitation System. [4M]
- e) In what way is the Hazardous waste management important in the present day scenario? [3M]
- f) What do you understand about sociopolitical sustainability? [3M]

**PART -B**

- 2 a) Explain in detail about the various Particulate control devices. [8M]
- b) As per IS codal provisions, list the various Noise standards. [4M]
- c) What are the various causes and effects of Gaseous emissions? Explain. [4M]
- 3 a) Explain the uses, advantages and limitations of Equalization Tanks. [5M]
- b) Discuss in detail about Recirculation and Proportioning of Industrial wastes. [8M]
- c) How Volume and Strength reduction does contributes towards industrial wastewater management? [3M]
- 4 a) According to EPA regulations, define the solid wastes and give the detailed classification of wastes. [8M]
- b) Describe any two methods of solid waste disposal along with neat sketches [8M]
- 5 a) Give the detailed classification and suitability of Sanitation System. [8M]
- b) Explain about any two Environmental sanitation methods adopted for Swimming pools and public bathing places. [8M]
- 6 a) Show and differentiate in the form of a tabular column the important characteristics of Nuclear, Chemical and Electronic wastes. [8M]
- b) Give the details of the treatment process followed for Biomedical wastes. [8M]
- 7 a) Explain the various ways of home sustainability as a part of sustainable development. [8M]
- b) Discuss in detail about the approaches and strategies of Sustainable development. [8M]

\*\*\*\*\*