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18CH653

## Sixth Semester B.E. Degree Examination, July/August 2022 Solid Waste Management in Process Industries

Time: 3 hrs.

Max. Marks: 100

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

### Module-1

- 1 a. What is meant by Solid Waste? Explain the Residential and Commercial Solid Wastes with example. (10 Marks)
- b. List and explain Physical and Chemical characteristics of Solid Waste. (10 Marks)

**OR**

- 2 a. What is called Hazardous wastes? Explain in detail with examples. (10 Marks)
- b. Explain the Health and Environmental effects by improper handling of wastes. (10 Marks)

### Module-2

- 3 Explain the principle of Solid Waste Management in detail. (20 Marks)

**OR**

- 4 Explain about on – site handling storage and Processing of Solid Waste. (20 Marks)

### Module-3

- 5 a. Explain the principle and layout of Sanitary Landfill. (10 Marks)
- b. Explain the Leachate collection and treatment methods. (10 Marks)

**OR**

- 6 a. Explain the methods of Mechanical Volume Reduction. (10 Marks)
- b. Explain the different Components Separation methods. (10 Marks)

### Module-4

- 7 a. What is On – Site Incinerator? What are the advantages and disadvantages of an Incinerator? (10 Marks)
- b. Explain Pyrolysis Processes. (10 Marks)

**OR**

- 8 a. Explain the factors in Composting Operation. (10 Marks)
- b. Explain the Composting Process. (10 Marks)

### Module-5

- 9 a. Discuss the identification collection and handling of Hazardous Waste in detail. (10 Marks)
- b. Discuss the Management and disposal of Hazardous Waste in detail. (10 Marks)

**OR**

- 10 a. Discuss in detail the Solid Waste Management in Textile Industry. (10 Marks)
- b. Explain in detail, the disposal and treatment of Solid Waste in Sugar Industry. (10 Marks)