



BT-VII-11.19-1344

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A

B.Tech. Degree VII Semester Examination November 2019**CE 15 – 1705 (E4) SOLID WASTE MANAGEMENT
(2015 Scheme)**

Time : 3 Hours

Maximum Marks : 60

**PART A
(Answer ALL questions)**

(10 × 2 = 20)

- I. (a) Describe briefly the six functional elements used in solid waste management.
(b) What are the main four characteristics of solid waste?
(c) What are the factors to be considered in selecting or specifying solid waste collection equipment?
(d) What is the process technology of incineration? Compare the merits and demerits.
(e) Write short notes on gasification and pyrolysis.
(f) Describe briefly the principle of composting.
(g) List and discuss the factors pertinent to the selection of a landfill site.
(h) What are the different methods of leachate recirculation?
(i) Definition of hazardous waste.
(j) Briefly discuss the treatment and disposal of chemical wastes.

PART B

(4 × 10 = 40)

- II. (a) Write a note on different classifications of solid waste. (6)
(b) What is the importance of waste stream assessment? (4)
- OR**
- III. (a) Briefly discuss the salient features of Indian legislations on management of municipal solid wastes. (5)
(b) What are the factors affecting generation rates? (5)
- IV. (a) Describe the different methods used for onsite processing of the waste. (6)
(b) What are the different four methods of collection truck routing? What are the factors considered in onsite storage? (4)
- OR**
- V. (a) What is transfer station? What are the requirements of a transfer station design? (5)
(b) What are the different technologies used in composting? (5)
- VI. (a) Describe any one of the methods of constructing a sanitary landfill. (5)
(b) What are the key issues in waste disposal? Write short note on various waste disposal options. (5)
- OR**
- VII. (a) Write short note on different phases in the life cycle of a landfill. (5)
(b) What are the main gases evolved in a sanitary landfill? Briefly describe the gas control techniques. (5)
- VIII. (a) Briefly discuss the sources, environmental effects of the e- waste. (5)
(b) Write down the method of handling and storage of hazardous waste. (5)
- OR**
- IX. (a) What are the different sources and characteristics of hazardous wastes in Municipal Waste. (6)
(b) What are the different treatment methods for hazardous waste? (4)