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10CV757

Seventh Semester B.E. Degree Examination, Dec.2016/Jan.2017
Solid Waste Management

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting
atleast TWO questions from each part.**

PART – A

- 1 a. With a neat schematic diagram, explain the functional elements of the solid waste management. (10 Marks)
b. Explain the classification and sources of solid wastes. (10 Marks)
- 2 a. Distinguish between hauled container system and stationary container system with a schematic diagram. (10 Marks)
b. With neat sketches explain different types of transfer stations. (10 Marks)
- 3 a. Explain the following processing techniques, briefly:
(i) Mechanical volume reduction
(ii) Mechanical size reduction. (10 Marks)
b. Explain the following component separation techniques:
(i) Magnetic separation
(ii) Hand sorting
(iii) Air separation (10 Marks)
- 4 a. What is incineration? With the help of neat sketch, explain incineration process. (08 Marks)
b. Explain 3Ts of incineration process. (06 Marks)
c. Define pyrolysis. Explain the process in brief. (06 Marks)

PART – B

- 5 a. Explain the following composting methods:
(i) Bangalore method
(ii) Indore method. (10 Marks)
b. What are the factors to be considered for the design of aerobic composting process? (10 Marks)
- 6 a. Explain the various factors considered in the selection of a site for a sanitary landfill. (08 Marks)
b. Explain area method and trench method of land filling techniques. (08 Marks)
c. What is a leachate? What are its effects on ground water? (04 Marks)
- 7 a. Explain briefly the various methods of solid waste disposal. (12 Marks)
b. Explain the biomedical waste disposal methods. (08 Marks)
- 8 Write short notes on the following :
a. Reuse and recycling of plastic waste
b. Garbage chutes
c. Hazardous waste
d. Vermi composting (20 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.