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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.