



USN

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10CV757

Seventh Semester B.E. Degree Examination, June/July 2018
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. Define Solid waste. Explain the importance of solid waste management. (10 Marks)
b. Explain the factors affecting the generation of solid waste. (10 Marks)
2 a. With the help of neat sketch, explain hauled stationary system with advantages and disadvantages. (10 Marks)
b. Estimate the energy content of a solid waste sample on unit energy content on dry basis and on ash free dry basis. (10 Marks)

Table with 4 columns: Component, % by mass, % moisture content, Energy [KJ/kg]. Rows include Food waste, Paper, Card board, Plastic, Garden Trimming, Wood, Tin can.

Assume Ash 5%.

- 3 a. Briefly explain mechanical volume reduction method. Also explain compaction equipment used for volume reduction. (10 Marks)
b. Explain the factors to be considered in evaluating on site processing techniques. (10 Marks)
4 a. With the help of neat sketch, explain municipal incinerator. (10 Marks)
b. Mention the various types of air pollution control equipment. Explain any one method. (10 Marks)

PART - B

- 5 a. Explain the factors considered for aerobic composting process. (10 Marks)
b. Explain : i) Bangalore method of composting ii) Vermi composting. (10 Marks)
6 a. Explain the various factors to be considered in the selection of a site for a sanitary land fill. (10 Marks)
b. Enumerate the various methods of land fill and explain in brief. (10 Marks)
7 a. Discuss the advantages and disadvantages of the disposal method of open dumping. (10 Marks)
b. Categorize the biomedical waste with example. (10 Marks)
8 a. Discuss the 3R concept in plastic usage. (10 Marks)
b. Describe the reuse and recycle of solid waste materials. (10 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.