

5E5068

Roll No.

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B. Tech. V Sem. (Main/Back) Exam., Nov.-Dec.-2016

Civil Engineering

5CE6.3A Solid Waste Management

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks Main: 26

Min. Passing Marks Back: 24

Instructions to Candidates:

Attempt any **five** questions, selecting **one** question from each unit. All questions carry **equal** marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly.

Units of quantities used/calculated must be stated clearly.

Use of following supporting material is permitted during examination.

(Mentioned in form No. 205)

1. NIL

2. NIL

UNIT - I

- Q.1 (a) Describe the problems associated with disposal of solid waste. Why solid waste is not properly disposed in India? [8]
- (b) Describe the characteristics of solid waste. [8]

OR

- Q.1 (a) Describe the generation of solid waste. What are the factors affecting generation of solid waste? [8]
- (b) Describe the classification of solid waste. [8]

UNIT - II

- Q.2 (a) Describe the importance of proper handling of solid waste. What are the considerations in onsite handling to be made for aesthetical reasons? [8]

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- (b) Describe various types of dustbins and suggest some improved forms for better storage of solid waste. [8]

OR

- Q.2 (a) What are the various ways of onsite handling? Describe various onsite processing methods. [8]
- (b) Describe the factors affecting location of containers. Describe community containers. [8]

UNIT – III

- Q.3 (a) Describe the various ways to decide the collection routes. [8]
- (b) Discuss with a suitable example the equipment and labour requirement for solid waste collection and transport for a residential colony. [8]

OR

- Q.3 (a) Describe various systems of collection of solid waste and their suitability. [8]
- (b) Describe various options for transfer and transport systems of solid waste. What improvements do you suggest in present system? [8]

UNIT – IV

- Q.4 (a) What is the necessity of processing solid waste? Describe various methods of processing. [8]
- (b) Describe various methods of disposal of solid waste with comparative advantages and disadvantages. [8]

OR

Q.4 Write short notes on:- [4x4=16]

- (a) Sanitary land filling
- (b) Composting
- (c) Incineration
- (d) Bioremediation

UNIT - V

- Q.5 (a) Describe various ways of energy recovery from solid waste. What are the problems associated with it? [8]
- (b) Describe the ways of reuse of solid waste in other industry or other option. [8]

OR

- Q.5 (a) Describe the nature of solid waste generated from some common industries like Bakery, Tannery, paper and pulp, distillery and food processing industries. [8]
- (b) Describe the treatment and disposal methods for industrial solid waste. [8]
