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Question Paper Code : 21189

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2013.

Seventh Semester

Civil Engineering

CE 2039/CE 714 – MUNICIPAL SOLID WASTE AND MANAGEMENT

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define 'solid waste ' state the types.
2. What are the improper methods of solid waste disposal?
3. State the advantages of on-site segregation of solid waste.
4. What are the different on-site process on solid wastes?
5. What is meant by secondary collection of solid waste?
6. What are the informations available in a collection route schedule?
7. What are the off-site processes?
8. List out any four recoverable products form off -site processing of solid waste.
9. Brief the treatment mechanism of a sanitary land filling.
10. What is the advantage of segregated solid waste disposal by sanitary land filling?

PART B — (5 × 16 = 80 marks)

11. (a) Discuss the various sources of municipal solid waste and the compositions of solid waste from each source. (16)

Or

- (b) (i) What are the different factors influencing solid waste generation rate? Explain them. (10)
- (ii) Write a note on NGOs contribution in solid waste management. (6)

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12. (a) List out the factors to be considered in selection of equivalent for on-site processing of solid wastes. Explain them. (16)

Or

- (b) (i) Explain the estimation of storage capacity of community bins. (8)
- (ii) What is mechanical volume reduction? Discuss its importance and method of carrying out. (8)
13. (a) Discuss the various components and requirements of a transfer station. (16)

Or

- (b) Explain the different solid waste collection systems and compare them. (16)
14. (a) Explain the various methods of composting solid wastes, their advantages and disadvantages. (16)

Or

- (b) Discuss the thermal conversion methods and resource recovery from solid wastes. (16)
15. (a) (i) Explain the area method of sanitary land filling. (8)
- (ii) List out factors governing selection of site for sanitary land fill. (8)

Or

- (b) Draw the layout plan for sanitary land fill showing its structural components, equipments/machineries being used and pollution preventive measures. Explain them. (16)
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