

29/5/17 (100)

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Question Paper Code : 71859

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2017.

Fifth/Seventh Semester

Civil Engineering

EN 6501 — MUNICIPAL SOLID WASTE MANAGEMENT

(Common to Environmental Engineering)

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define Municipal Solid Waste.
2. State the prerequisites of an effective system of solid waste management.
3. Define waste minimization.
4. What is the purpose of onsite processing?
5. What is transfer station?
6. What is Haul distance?
7. What are the four main ways to treat organic biodegradable waste?
8. What is Municipal solid waste composting?
9. How to designate sanitary landfill?
10. What is landfill gas? What are its advantages?

PART B — (5 × 16 = 80 marks)

11. (a) State the solid waste management recommendations of expert committee 1999 considered by Honorable Supreme Court of India. State the major functions of civic body. (16)

Or

- (b) Write a note on Environmental and Health risk scenarios of solid waste. (16)

12. (a) What can you do to reduce solid waste? With a neat diagram explain the resource recovery facility producing various marketable products from municipal solid waste. (16)

Or

- (b) Discuss on storage of waste at source in a nut shell. (16)

13. (a) What are the minimum equipments/tools required for workshop to maintain a fleet of up to 50 vehicles? State general specifications of 7 cu.mt. Capacity garbage containers to be handled by 7 cu.mt. D.p. Units. (16)

Or

- (b) Discuss on Heuristic Routing Rules. (16)

14. (a) Draw the typical process flow diagram for composting of Municipal Solid Waste. (16)

Or

- (b) Discuss on advantages and disadvantages of any two methods of incineration processes. (16)

15. (a) Discuss the solid waste disposal options. (16)

Or

- (b) What are the requirements of a landfill layout? Write a note on sanitary land filling. (16)