

(Following Paper ID and Roll No. to be filled in your
Answer Books)

Paper ID : 197406

Roll No.

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B.TECH.

Theory Examination (Semester-IV) 2015-16

SOLID WASTE MANAGEMENT

Time : 3 Hours

Max. Marks : 100

Section-A

Q1. Attempt all parts. All parts carry equal marks. Write answer of each part in short. (2×10=20)

- (a) Define solid Waste Management and List out the various sources of Solid waste.
- (b) List the objective of going for onsite processing of Solid Waste.
- (c) Give the common methods of handling of Solid Waste in high rise apartment.
- (d) What is community bin system? State the bin capacity requirement.

- (e) Write short notes on pneumatic, hydraulic and other of transport.
- (f) Describe the components of waste collection stems?
- (g) What is meant by Pyrolysis?
- (h) State the solid waste generation rate in rural and urban centers of our country.
- (i) Define leachate and list the various types of gases generated in sanitary land fills.
- (j) Write short note on Trench method.

Section-B

UPTU NOTES

Q2. Attempt any five questions from this section.

(10×5=50)

- (a) Elaborate the goals and objective of solid waste management.
- (b) Explain the application and limitations of containers used for the onsite storage of Solid Wastes.

- (c) Explain the methods of collection of solid waste from the source of generation.
- (d) What is a 'leachate'? Mention any one method of treatment of leachate and disposal.
- (e) What are the material which can be recovered from solid waste. Briefly describe concepts of energy recovery from solid waste.
- (f) Define Compositing. Explain the types of compositing.
- (g) Explain the mechanical volume reduction in detail.
- (h) Briefly explain the occurrence of gases and leachate in landfills.

Section-C

Attempt any two questions from this section.

(15×2=30)

- Q3. (a) Discuss the present scenario in collection of Municipal Solid Waste.
- (b) Write detailed note on nuisance caused by garbage loaded open trucks on highway.

- Q4. (a) What are transfer stations? What are the factors to be considered while selecting the site for a transfer station?
- (b) Write a note on air pollution problem in incineration process.
- Q5. (a) Discuss the different methods used for MSW land fills.
- (b) Mention the main parameters to be considered in the design of a sanitary landfill.

