Code : 011760

B.Tech. 7th Semester Examination, 2016

Solid Waste Management

Time : 3 hours *Full Marks : 70*

Instructions :

(i) *There are **Nine** Questions in this Paper.*

(ii) *Attempt **Five** questions in all.*

(iii) ***Question No. 1 is Compulsory.***

(iv) *The marks are indicated in the right hand margin.*

1. Choose the correct answer (any seven): 2×7=14

   (a) In Bangalore method of composting the refuse is stabilized

   (i) aerobically

   (ii) anaerobically

   (iii) burning

   (iv) washing

   (b) Which of the following is not a combustible waste?

   (i) Paper

   (ii) Wood

   (iii) Glass

   (iv) All of the above

3. What do you understand by "Solid Waste Management"? Explain the various processes operation involve in solid waste management with the help of flow chart. 14

4. Briefly explain the generation rates? Briefly explain that factor affect of generation rates ? 14

5. What do you mean by onsite storage ? List out the various onsite processing ? What are the various advantages of solid waste separation? 14

6. Differentiate between hazardous and non-hazardous waste. Explain methods for disposal of E-waste. 14

7. Explain briefly the various methods of solid waste disposal. Explain the various factors to be considered in the selection of a site for a sanitary land fill. Differentiate between composting and vermin-composting. 14

8. Explain the salient provisions of the Municipal Solid Waste (Management and Handling) Rules 2000, indication their limitations. 14

9. Short notes on (any four) 3·5×4=14

   a. Non-biodegradable waste

   b. Agricultural wastes

   c. Public health aspects

   d. Construction wastes

   e. Recovery and Re-use of waste

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(c) Which of the following is a practice used to reduce and manage MSW?

(i) waste combustion

(ii) source reduction

(iii) recycling of materials

(iv) all of the above

(d) Which of the following is not a source reduction activity?

(i) Products package reuse

(ii) Reducing use by modifying practices

(iii) Saving energy by using recycled materials

(iv) Package or product design that reduces material or toxicity

(e) One of the most effective forms of hazardous waste disposal may be:

(i) landfills

(ii) deep-well injection

(iii) incineration

(iv) surface impoundments

(f) Compost is being used for all of the following except:

(i) landfill cover

(ii) landscaping

(iii) low grade fertilizers

(iv) agricultural feed

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(g) The method of refuse disposal, involving burial in trenches, is called

(i) incineration

(ii) pulverization

(iii) composting

(iv) none of these

(h) Sanitary landfills may cause troubles during

(i) peak summers

(ii) peak winters

(iii) peak monsoons

(iv) none of these

(i) Leachate is a coloured liquid, that comes out of

(i) septic tanks

(ii) sanitary landfills

(iii) compost plants

(iv) aerated lagoons

(j) Biomedical wastes consist of

(i) solid wastes

(ii) liquid wastes

(iii) both (a) and (b)

(iv) none of these

2. What is solid waste ? Explain the sources of solid waste. Discuss the composition of municipal solid wastes? 14

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