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(ii) Environmental and health hazards of electronic waste

8. Describe different waste recycling methods and the importance of traditional and sanitary landfill design in minimizing environmental challenges due to solid waste. (15)

(100)

30/5/23 (M)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 4838

E

Unique Paper Code : 32187602

Name of the Paper : Solid Waste Management

Name of the Course : B.Sc. (H) Environmental Science - DSE

Semester : VI

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any five questions.
3. All questions carry equal marks.

1. Write short notes on the following : (5×3=15)

(i) Refuse-derived fuel

P.T.O.

- (ii) Green techniques for waste management
- (iii) Landfill leachate
2. Differentiate between the following : (5×3=15)
- (i) Pyrolysis and incineration
- (ii) Municipal and biomedical waste
- (iii) Aerobic and anaerobic digestion
3. What are the effects of Industrial waste on air, water, and soil? Give examples of different methods to manage industrial waste. Briefly discuss the working of Effluent treatment plants. (15)
4. *“Improper management of biomedical waste can lead to environmental and human health hazards”*
Discuss how biomedical waste can lead to environmental and human health hazards. Discuss the salient features of Bio-Medical Waste (Management

- and Handling) Rules 1998. Also, discuss the importance of segregating biomedical waste and methods used to dispose of biomedical waste. (15)
5. Waste-to-energy (WTE) has huge potential to solve the problem of solid waste management in Indian cities but also has limitations. Elaborate on the current economic, societal, and environmental challenges in establishing a Waste-to-energy (WTE) in Indian cities. (15)
6. With the help of a case study, discuss the role of Life Cycle Assessment (LCA) in effectively managing solid waste generated in industries. Also, discuss the advantages and limitations of LCA. (15)
7. Write a detailed account on the following : (7×2=15)
- (i) Effluent treatment plants for environmental protection