

**CERTIFICATE IN SOLID WASTE
TREATMENT TECHNIQUES (CSWATT)**

Term-End Examination

December, 2021

BWA-004 : DISPOSAL OF WASTES

Time : 3 hours

Maximum Marks : 70

Note : *Attempt any **ten** questions. All questions carry equal marks. Use of calculator is allowed.*

1. What is the history of landfills ? Discuss in brief about any five landfill sites in India. 7
2. Write the classification of landfills based on construction. 7
3. Explain the components considered in economic analysis of landfill. 7
4. Discuss the points considered while designing a landfill for solid waste disposal. 7

5. A landfill area of 150 m × 100 m is available for handling solid waste for a town of 5,00,000 people. Out of the total landfill area, only 80% is actually available for landfill and the rest is used for auxiliary services. Assuming that average per capita solid waste discard per year in the town is 0.05 ton, landfill density is 500 kg/m³ and that 15% of the actual landfill cell volume is used for soil cover, estimate the (a) landfill lift in one year, and (b) number of years for which the landfill can be used if the landfill cannot be increased beyond 25 m. 7
6. Write the phases of bacterial decomposition of landfill waste. Explain briefly. 7
7. Discuss the factors influencing leachate generation. 7
8. Explain the procedure for closure of disposal facility. 7
9. Explain project identification stage in Environmental Impact Assessment (EIA). 7
10. What is the purpose of risk assessment during waste management? 7
11. Discuss the various safety recommendations for waste collectors. 7

- 12.** What are the responsibilities of the employers as per Occupational Safety and Health Administration (OSHA) ? 7
- 13.** Explain the need of adopting Information and Communication Technology (ICT) in solid waste management. 7
- 14.** Write a note on Geographic Information System (GIS). 7
- 15.** Discuss the functions of landfill cover. 7
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