

VISION INSTITUTE OF TECHNOLOGY

B.TECH, CIVIL, 4th YEAR

Solid Waste Management [RCE-084]

Question Bank [UNIT-01]

1. Explain the sources and types of solid waste with neat sketch.
2. Discuss the hierarchy of waste management system with suitable diagram.
3. Explain the functional elements of solid waste management system with suitable diagram.
4. Discuss the physical & chemical composition of MSW.
5. Explain the impact of solid waste on public health and environment.
6. Discuss the integrated SWM system.
7. Explain the storage system & its type with neat sketch.
8. Discuss the collection system & its type with neat sketch.
9. Explain the different methods of waste generation rate.
10. Explain the hauled container system in detail.
11. Write a short note on stationary container system.

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Question Bank [UNIT-2]

1. Write a short Note on: - [with suitable diagram]
 - (A) Hand Cart
 - (B) Tri-cycle
 - (C) Animal Cart
 - (D) Tripper truck
 - (E) Dumper trucks
 - (F) Rail and water Transport
2. Discuss layout of routes for MSW with suitable diagram.
3. Explain the separators and its operations for material separation.
4. Discuss size reduction and its equipments with suitable diagram.
5. Explain the process of screening of MSW and its Equipments with neat sketch.
6. Discuss densification of solid wastes with suitable diag.
7. Discuss the term 'pelletting' along ^{with} the equipments using in pelletting operation.

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Solid Waste Management [RCE-084]

Question Bank [UNIT-3]

1. Discuss the site selection criteria for landfilling of MSW.
2. Explain the composition & characteristics of occurrence of gases and leachate in landfills.
3. Discuss the Engineering system for on-site handling and processing of MSW with neat sketch.
4. Discuss the ^{requirements of} Engineered Landfills with suitable examples.
5. Explain layout of landfill site with suitable diagram.
6. Briefly Explain the ^{steps involved in} management of a landfill site.
7. Explain the factors affecting landfill gas generation.
8. Write a short Note on the phases of landfill Gas generation. with suitable diagrams. (i.e)
 - (A) Initial Adjustment phase
 - (B) Transition phase
 - (C) Acid formation phase
 - (D) Methane formation phase
 - (E) Maturation phase of gas & leachate.

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Solid waste Management - (RCE-084)

Question Bank [UNIT-4]

1. Explain Composting and its type with neat clean sketch.
2. Explain the Aerobic Composting ^{and its method} with suitable diagram.
3. Explain the Anaerobic Composting and its method with suitable diagram.
4. Discuss the Incineration process of Composting with clean sketch.
5. Write a short note on pyrolysis system of composting with clean diagram.
6. Discuss the overview of solid waste management practices in India.

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Solid waste Management (RCE-084)
Question Bank [UNIT-5]

1. Explain the types of Hazardous waste in India.
2. Discuss the characteristics of Hazardous waste, also discuss the precautions to be taken while handling and transport of hazardous waste.
3. Discuss the problems arises due to handling of hazardous waste.
4. Describe different waste minimisation techniques which can be adopted in solid waste management.
5. Explain biomedical waste management in brief.
6. Explain the components of Electronic waste (E-waste).
7. Discuss the environmental impacts related with E-waste, also
Being an environmental engineer, suggest its possible treatment option.