

17605

15162

3 Hours / 100 Marks

Seat No.

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- Instructions* –
- (1) All Questions are *Compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following: **20****
- a) Define the following:
 - (i) E-waste
 - (ii) Biomedical waste
 - b) State various methods of storage of municipal solid waste.
 - c) What are the sources of solid waste.
 - d) List the various transportation equipment of municipal waste.
 - e) State the factors affecting the solid waste generation.
 - f) Draw the organization pattern of solid waste management.
 - g) State the impact of solid waste on environment.

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- 2. Attempt any FOUR of the following:** **16**
- a) Define Industrial waste and Biomedical waste.
 - b) What is transfer station and state its necessity.
 - c) Explain solid waste management techniques.
 - d) Explain waste prevention and waste management.
 - e) Describe the process of Indoor method of composting.
 - f) State the products of incineration process with their use.
- 3. Attempt any FOUR of the following:** **16**
- a) Describe the process of disposal of solid waste by trench method of land filling.
 - b) State the factors affecting on composting process of solid waste.
 - c) State the four advantages and four disadvantages of Landfill method.
 - d) What do you mean by Pyrolysis of waste and state its methods.
 - e) What is vermi composting. State its concept.
 - f) What is leachate? How it can be controlled?
- 4. Attempt any FOUR of the following:** **16**
- a) Explain the types of incinerators.
 - b) State the control measures of industrial waste.
 - c) What are the sources and generation of biomedical waste? Give its health aspects.
 - d) Define E-waste. State the dangers of E-waste.
 - e) State the benefits of recycling of industrial waste.
 - f) Describe method of collection and disposal of E-waste.

5. Attempt any FOUR of the following:**16**

- a) Describe Biomedical waste management and handling as per rule 1998.
- b) List the various types of special waste.
- c) Explain the varieties of E-waste.
- d) State the classification of Biomedical waste.
- e) State the importance of public involvement in solid waste management.
- f) State the benefits of Recycling of solid waste.

6. Attempt any FOUR of the following:**16**

- a) Explain the health problem during the time of segregation, reuse, recovery recycling of solid waste.
 - b) State hazardous solid waste.
 - c) Describe the methods of collecting recyclables.
 - d) State the purpose of recycling.
 - e) Enlist collection methods of municipal solid waste. Explain any one.
 - f) State the factors affecting on composting process of solid waste.
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