

17605

16117

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) 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 solid waste and list any four sources of solid waste.
- b) Enlist any four transport vehicles with their capacities for transporting municipal waste.
- c) State various factors affecting composting process.
- d) Define biomedical waste and enlist any four sources of generation of biomedical waste.
- e) State the purposes of recycling of solid waste.
- f) Explain the health problems during time of segregation of solid waste.

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- 2. Attempt any FOUR of the following:** **16**
- a) State the various factors affecting on solid waste generation.
 - b) Give the physical characteristics of solid waste.
 - c) Give the impact of solid waste on environment.
 - d) Explain the principle of composting process.
 - e) Enlist any four factors affecting site selection for land filling.
 - f) Give the meaning of following terms:
 - (i) Hazardous waste
 - (ii) Domestic waste
 - (iii) Agricultural waste
 - (iv) Commercial waste
- 3. Attempt any TWO of the following:** **16**
- a) Enlist various methods of collection of municipal solid waste and explain any one of them.
 - b) Enlist various methods of land filling and explain any one of them. Give the advantages and disadvantages of land filling.
 - c) Enlist types of incinerators. Explain any one of them. Give the advantages and disadvantages of incineration process.
- 4. Attempt any FOUR of the following:** **16**
- a) Explain the terms waste prevention and waste reduction.
 - b) Draw the organization pattern of solid waste management.
 - c) Explain in brief transferstation.
 - d) State the methods of storage of solid municipal waste.
 - e) What do you understand by Vermicomposting?
 - f) Explain pyrolysis of waste.

- 5. Attempt any TWO of the following:** **16**
- a) Define E-waste. State various types of E-wastes. Explain the methods of disposal of E-waste.
 - b) Describe method of collection and disposal of industrial waste.
 - c) (i) Explain Recycling of industrial waste.
(ii) Explain Biomedical waste management and handling Rule 1998.
- 6. Attempt any FOUR of the following:** **16**
- a) Write short note on health aspect during handling and processing of solid waste.
 - b) Describe health problems during time of segregation of solid waste.
 - c) State any four benefits of recycling of solid waste.
 - d) Describe the process of recycling.
 - e) State the purpose of recycling of solid waste.
 - f) State the importance of mass education in solid waste management.
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