

Total No. of Questions : 8]

SEAT No. :

PE-2485

[Total No. of Pages : 2

[6583]-9

T.E. (CIVIL)

SOLID WASTE MANAGEMENT

(2019 Pattern) (Semester - VI)(Elective - II) (301015F)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Attempt Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6 and Q.7 or Q.8.
- 2) Figures to the right indicate full marks.
- 3) Draw neat figures wherever necessary.
- 4) Assume necessary data.
- 5) Use of scientific calculator is allowed.

- Q1)**
- a) Explain with sketch the Bangalore Method of composting. [6]
 - b) Suggest and justify the criteria adopted for the execution of vermicomposting. [6]
 - c) State the terms related to Solid waste management [6]
 - i) Segregation
 - ii) Recovery
 - iii) Recycling

OR

- Q2)**
- a) List the factors affecting composting process of solid waste. [6]
 - b) Specify the role of transfer station in municipal solid waste management. [6]
 - c) Explain Integrated Solid Waste Management by citing out the political, environmental and economic aspects along with its advantages. [6]
- Q3)**
- a) What are the factors affecting anaerobic digestion? [6]
 - b) How to estimate Low and high heating value of solid waste? [6]
 - c) Explain advantages, limitations and applications of plasma gasification. [5]

OR

P.T.O.

- Q4)** a) Explain advantages, limitations and applications of refused derived fuel (RDF). [6]
b) What are steps involved in design of incineration plant? [6]
c) Write working principles, advantages and disadvantages of anaerobic digestion process. [5]

- Q5)** a) How to control of contamination of ground water during land fill. [6]
b) What are steps involved in design of sanitary landfill? [6]
c) What is Legacy waste management? [6]

OR

- Q6)** a) Write short note on: Slope stability analysis in landfill. [6]
b) What is engineered landfill? Why it is essential? Explain in brief different methods of landfilling. [6]
c) Explain economics and time duration of biomining. [6]

- Q7)** a) Suggest the appropriate method for disposal of e-waste and sanitary napkin. [6]
b) What are objectives and key points of hazardous waste management rules, 2016? [6]
c) What is life cycle assessment (LCA) in solid waste management? [5]

OR

- Q8)** a) Write objectives and major provision in plastic waste management rules - 2016. [6]
b) Explain any one case study of processing and reuse of construction & demolition waste. [6]
c) Explain any one case study of material recovered from e-waste. [5]

