

Total No. of Questions : 4]

SEAT No. :

**PB95**

[Total No. of Pages : 1

**[6269]-309**

**T.E. (Civil Engg.) (Insem)**

**SOLID WASTE MANAGEMENT**

**(2019 Pattern) (Semester - II) (Elective - II) (301015f)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

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

- Q1)** a) What are the sources and types of solid waste? [5]  
b) Explain the functional elements of solid wastes management. [5]  
c) Write a short note on : Sustainable solid waste management for smart cities. [5]

OR

- Q2)** a) What are regulations of SWM in developed countries? [5]  
b) List chemical characteristics of solid waste. Explain one of them. [5]  
c) What is the role of urban local bodies in waste management? [5]

- Q3)** a) What is role of Swachhta & rural engagement cell (SESREC)? [5]  
b) Discuss optimization of collection routes in SWM. [5]  
c) Explain waste collection services in detail. [5]

OR

- Q4)** a) Explain any one success story of SWM from India. [5]  
b) What are the criteria considered while selection of location of transfer station? [5]  
c) How to use of radio frequency identification (RFI)/global positioning system (GPS) for tracking vehicles location? [5]

