B. TECH. (CBCS - 2014 COURSE) SEM – VIII (CIVIL ENGG.) :
SUMMER - 2018
SUBJECT: SOLID WASTE MANAGEMENT

Day: **Saturday** **S-2018-4659** Time: **02.30 PM TO 05.30 PM**
Date: **09/06/2018** Max Marks. 60

N.B. :

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Assume suitable data, if necessary.

Q.1 **a)** Define solid waste. Explain classification of solid waste. **(05)**
b) What are the functional elements of solid waste management? Explain. **(05)**

OR

Q.1 **a)** Explain materials flow chart for municipal solid waste. **(05)**
b) Explain how future per capita solid waste generation is estimated? **(05)**

Q.2 **a)** What is present scenario of solid waste collection in urban areas? **(05)**
b) What is the present scenario of storage of solid waste in cities? **(05)**

OR

Q.2 **a)** Explain: Collection of bio medical waste from hospitals. **(05)**
b) What is the necessity of special types of containers for collection of hazardous and toxic waste? Explain **(05)**

Q.3 **a)** Write a note: Types of vehicles used in transportation of solid waste. **(05)**
b) What are the factors to be considered while setting up a transfer station? Explain. **(05)**

OR

Q.3 **a)** What is routing and non routing of vehicles in SWM? Explain. **(05)**
b) Write a note: Lifting of waste from the transfer station. **(05)**

Q.4 Explain primary sorting at source and primary sorting at community bin. **(10)**

OR

Q.4 Explain material recovery at transfer station and at disposal site. **(10)**

Q.5 What are the environmental impacts of landfills? How these can be minimized? **(10)**

OR

Q.5 What are principles of composting? Explain various factors affecting composting. **(10)**

Q.6 What are the different emerging solid waste processing technologies? Explain slurry carb process. **(10)**

OR

Q.6 Write a note on: Biogas from Municipal Solid Wastes with reference to its process, biogas formation and digested sludge. **(10)**

* * * * *