

**B. TECH. (CBCS - 2014 COURSE) SEM - VIII (CHEMICAL
ENGG.) : SUMMER - 2018**

SUBJECT: ELECTIVE – IV: HAZARDOUS WASTE MANAGEMENT

Day: **Saturday**
Date: **02/06/2018**

S-2018-4647

Time: **02.30 PM TO 05.30 PM**
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 What are the rules and regulations for hazardous waste management? Explain their importance and need **(10)**

OR

Q.1 a) What is fly ash? What are the regulation for fly ash handling and disposal? **(05)**

b) What are the rules for recycled plastic usages? **(05)**

Q.2 What are the characteristics of waste? What are the methods of waste characterization? Explain them. **(10)**

OR

Q.2 a) What is compatibility of waste? Why it is necessary? How to determine it? **(05)**

b) What are the rules pertaining for transport of Chemicals? Explain them. **(05)**

Q.3 Which are the sources of radioactive waste? Explain the properties and hazards **(10)**

OR

Q.3 What is nuclear Fuel? How production of nuclear fuel leads to generation of radioactive waste? What are the methods of its handling? **(10)**

Q.4 How combustion is used for hazardous waste management? What are its possible hazards and regulation for its control? **(10)**

OR

Q.4 a) How air stripping is used in waste management? **(05)**

b) What is stabilization? How it is used in waste handling and management **(05)**

Q.5 What is Bioreactor? How bioreactors are used in composting? **(10)**

OR

Q.5 a) What is the inhibition method? How it is used to reduce waste **(05)**

b) What is co-metabolism? How it is used in waste reduction? **(05)**

Q.6 What is leachate? Why it is important? Which are the methods for leachate collection and removal? **(10)**

OR

Q.6 What are the types of solid waste? How are they treated by landfill? **(10)**

* * * * *