

Roll No.

Total No. of Pages : 02

Total No. of Questions : 08

M.Tech.(Bio Tech.) (Sem.-1)
ENVIRONMENTAL ENGINEERING AND WASTE MANAGEMENT
Subject Code : MTBT-111
Paper ID : [E0929]

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

1. a) Discuss the method of collection of the solid waste and its problems in Indian context. [10]
b) Discuss the method of sanitary land filling of solid waste disposal and its problems. [10]
2. a) What are the primary and secondary air pollutants? Discuss in detail the effects of any two primary and any two secondary pollutant on the environment. [10]
b) Discuss the dispersion of air pollutant from a plume in relation with the lapse rate, with neat figures. [10]
3. Write short notes working principle along with design considerations :
a) Centrifugal collector. [10]
b) Wet scrubber. [10]
4. Discuss in details :
a) Vehicular pollution and its emission control. [10]
b) Sources of water and solid waste and its impact on environment. [10]
5. a) Discuss the term in detail 'characterization of effluent'. [10]
b) Write short notes on :
i) Ozonization. [5]
ii) Disinfection. [5]

6. Discuss in details :
 - a) Biofules. [10]
 - b) Bioremediation. [10]
7. Write notes on :
 - a) Biofilter technology. [10]
 - b) Hospital waste management. [10]
8. Discuss :
 - a) The activated sludge process of waste water treatment. [10]
 - b) Settling tank design consideration for waste water treatment. [10]

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