



PAPER ID-310578

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Subject Code: KCE074

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BTECH
(SEM VII) THEORY EXAMINATION 2023-24
SOLID WASTE MANAGEMENT

TIME: 3 HRS**M.MARKS: 100**

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief.

Q no.	Question	Marks	CO
a.	Write major sources of municipal solid waste.	2	1
b.	What are the major recoverable materials present in solid waste?	2	1
c.	Mention two component of routing procedures.	2	2
d.	What is the main principle of separation of solid waste?	2	2
e.	Define landfill.	2	3
f.	Write the types of landfills?	2	3
g.	Define incineration process.	2	4
h.	What do you mean by C/N ratio?	2	4
i.	Explain corrosivity.	2	5
j.	Differentiate between biomedical and hazardous waste.	2	5

SECTION B

2. Attempt any three of the following:

a.	Describe the composition of municipal solid waste.	10	1
b.	Discuss various methods opted for on-site processing of solid waste.	10	2
c.	Describe the physical and chemical parameters considered for energy recovery from municipal waste.	10	3
d.	Discuss the site selection criterion of sanitary landfill.	10	4
e.	Describe the electronic waste and hazardous waste.	10	5

SECTION C

3. Attempt any one part of the following:

a.	Explain integrated solid waste management.	10	1
b.	What do you understand by waste generation? What is the various method used to estimate the quantities of solid waste generation?	10	1

4. Attempt any one part of the following:

a.	Discuss classification of waste minimization techniques.	10	2
b.	Describe the on-site handling and storage of solid waste.	10	2

5. Attempt any one part of the following:

a.	Describe the all phases for the generation of landfill gases.	10	3
b.	Discuss the factors affecting landfill gases.	10	3

6. Attempt any one part of the following:

a.	Explain design consideration for aerobic composting.	10	4
b.	Describe the pyrolysis and gasification process of solid waste	10	4

7. Attempt any one part of the following:

a.	Examine what are the harmful effects/risks involved due to hazardous waste.	10	5
b.	Explain the treatment of hazardous waste.	10	5