

--	--	--	--	--	--	--	--	--	--



GIET MAIN CAMPUS AUTONOMOUS GUNUPUR – 765022
B. Tech Degree Examinations, December – 2020
(Seventh Semester)

BCEOE 7051 - MUNICIPAL SOLID WASTE MANAGEMENT
(Civil Engineering)

Time: 2 hrs

Maximum: 50 Marks

The figures in the right hand margin indicate marks.

Q.1. Answer all the questions (1 X 10 = 10 marks)

Q.1. Answer all the questions

- a. How many main components are there in integrated waste management?
 - a. Two
 - b. Three
 - c. Seven
 - d. Nine
- b. Which of the following solid wastes describes the term 'Municipal Solid Waste'
 - a. Toxic
 - b. Non-toxic
 - c. Hazardous
 - d. Non-hazardous
- c. Which of the below is not an idea behind solid waste management?
 - a. Control of waste generation
 - b. Storage and collection
 - c. Disposal
 - d. Stop waste generation
- d. Which one types of collection services is suitable for narrow street or path between building in a town
 - a. curb side
 - b. block collection
 - c. door to door collection
 - d. Alleys
- e. On site segregation is intended
 - a. To improve disposal options
 - b. To recover valuable resources
 - c. To prepare materials for recovery as new products (or) energy
 - d. All of the above
- f. Routing of MSW collection is for
 - a. Minimizing the time of transport
 - b. Minimizing the distance of transport
 - c. Minimizing the pollution during transportation
 - d. All of the above
- g. Which one is not waste collection vehicle
 - a. Pneumatic collection
 - b. Grapple trucks
 - c. Front loaders
 - d. Shredding
- h. Which of the following methods is used to recover energy fom the incineration processes
 - a. Heat
 - b. Energy
 - c. cogenration
 - d. All of the above
- i. When the organic matter present in the sanitary landfill decomposes, it generates
 - a. Methane
 - b. Nitrogen

--	--	--	--	--	--	--	--	--	--

- c. Hydrogen
j. Which of the following methods is better for the solid waste problem
a. Recycling
c. Landfilling
- d. All of the above
b. None of the above
d. Both a and b

PART – B (Short answer Question)

Q. 2. Answer ALL questions

(2 x 5 = 10 marks)

Q.2. Answer **ALL** questions

- Distinguish between Biodegradable and non-biodegradable wastes
- List out the 4 – R’s in waste hierarchy?
- What are the factors to be considered while deciding collection frequency in a SWM system?
- What are the parameters affecting the composting process
- Define Incineration

PART – C (Long answer Question)

Answer **ANY FIVE** questions

(6 x 5 = 30 marks)

- Describe the effects on improper disposal of solid waste on human health and Factors affecting Generation of Solid wastes.
- Briefly discuss about the various sources and types of solid wastes.
- Briefly explain the critical evaluation of options of onsite storage and processing?
- List out the factors to be considered in selection of equivalent for on – site processing of solid waste. Explain them
- Explain in detail about Hauled Container System with neat sketch
- Discuss in detail the present scenario in collection of MSW under Indian conditions.
- Write briefly about the composting facilities and various types of composting techniques.
- Explain the various phases of municipal solid waste decomposition in a closed landfill?

--- End of Paper ---