

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)

**B.Tech. IV Year I Semester Regular & Supplementary Examinations October/November-2025**  
**WASTE RESOURCE MANAGEMENT**

(Open Elective-IV)

**Time: 3 Hours**

**Max. Marks: 60**

(Answer all Five Units 5 x 12 = 60 Marks)

**UNIT-I**

1 a Define Waste Management and list the fundamental concepts in waste management. CO1 L1 6M

b Explain the types of waste management. CO1 L2 6M

**OR**

2 a Describe how to manage electronic waste. CO1 L2 6M

b Explain the effects of pollutants on human health and the surrounding environment. CO1 L2 6M

**UNIT-II**

3 List out the various types of solid waste management. CO2 L1 12M

**OR**

4 a Explain the concept of "zero waste." CO2 L2 6M

b Describe a challenging situation faced in solid waste management and how it was resolved. CO2 L2 6M

**UNIT-III**

5 a Define biomedical waste. What are the main aspects of biomedical waste? CO3 L1 6M

b What are the types of biomedical waste? List out the different colors introduced by CPBC to dispose of biomedical waste. CO3 L1 6M

**OR**

6 a Explain the terms autopsy centers and paramedics. CO3 L2 6M

b Describe the methods of liquid waste disposal in the hospital. CO3 L2 6M

**UNIT-IV**

7 a Illustrate the types of hazardous and non-hazardous waste. CO4 L3 6M

b Why are volatile organic compounds (VOC) considered hazardous gases? List out the health effects. CO4 L4 6M

**OR**

8 a What is a secure hazardous waste landfill? CO4 L1 6M

b Discuss the India's laws and rules against hazardous waste dumping? How much hazardous waste is generated in India. CO4 L1 6M

**UNIT-V**

9 a List out the common types of storage containers? CO5 L1 6M

b Illustrate the benefits and limitations of recycling wastes. CO5 L3 6M

**OR**

10 a Why is it essentially required for the recycling of waste? CO5 L4 6M

b Elucidate about Swachh Bharat Abhiyan's mission in India. CO5 L2 6M

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