SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech. III Year II Semester Regular & Supplementary Examinations June-2025
SOLID WASTE & BY-PRODUCT UTILIZATION
(Agricultural Engineering)

Time: 3 Hours　　　　　　　　　　　　　　　　　　　　　　**Max. Marks: 60**

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

UNIT-I

1	a	Explain in detail about composting.	L2	CO1	6M
	b	Discuss about advantages and disadvantages of composting.	L3	CO1	6M

OR

2	Explain about recovery of energy from municipal solid waste.	L2	CO1	12M

UNIT-II

3	a	Write about bio fuels and their raw materials.	L1	CO2	6M
	b	Distinguish incineration and pyrolysis.	L4	CO2	6M

OR

4	a	Explain in detail about thermo chemical conversion.	L2	CO2	6M
	b	Explain about liquefaction and gasification.	L2	CO2	6M

UNIT-III

5	Explain in detail about steps involved in gasification process.	L2	CO4	12M

OR

6	Explain Up- draft and down-draft Gasifier with neat sketch.	L2	CO4	12M

UNIT-IV

7	Explain in detail about considerations for design of biogas digester.	L2	CO5	12M

OR

8	Explain about the factors effecting gas generation in biogas plant.	L2	CO5	12M

UNIT-V

9	a	What is Briquetting? Write about importance of shredding in briquetting process.	L2	CO6	4M
	b	Discuss about factors effecting of briquetting process.	L3	CO6	4M
	c	What are the advantages and disadvantages of briquettes?	L1	CO6	4M

OR

10	a	Explain working principle of piston type briquetting machine with neat diagram.	L2	CO6	6M
	b	Write the procedure for production of bio diesel from pongamia.	L1	CO3	6M

*** END ***