



INSTITUTE OF AERONAUTICAL ENGINEERING (Autonomous)

B.Tech VI Semester End Examinations (Regular), November– 2020

Regulation: IARE–R16

ENERGY FROM WASTE

(IT)

Time: 2 Hours

Max Marks: 70

Answer any Four Questions from Part A

Answer any Five Questions from Part B

PART – A

1. Explain briefly about municipal domestic waste, commercial waste and institutional waste. [5M]
2. What are the factors which affect production of leachate and landfill gas in landfill? [5M]
3. Write a note on process of fermentation. [5M]
4. List out various thermo chemical conversion processes. [5M]
5. Write short notes on E-waste and discuss briefly step by step process of recycling of E-waste. [5M]
6. Discuss briefly about environmental effects of landfill. [5M]
7. Discuss about factors affecting anaerobic degradation of organic matter. [5M]
8. Briefly explain the process of backyard composting. [5M]

PART – B

9. Discuss briefly the sources, types, storage and transportation of bio medical waste. [10M]
10. Explain the process of incineration with a neat sketch and discuss the merits and demerits of incineration. [10M]
11. What are the various phases of operation of landfill? Draw the neat sketch of a landfill. [10M]
12. Explain design and construction of sanitary landfill with a neat sketch. [10M]
13. Explain process of anaerobic digestion of sewage and municipal waste [10M]
14. Discuss about factors affecting anaerobic degradation of organic matter. [10M]
15. Explain the process of biogas production. Discuss the advantages and benefits of briquetting. [10M]
16. Summarize the difference between pyrolysis and gasification? Explain in-detail about gasification of waste. [10M]
17. Explain the sources of E-waste and various impacts of E-waste on the environment. [10M]
18. Discuss briefly about E-waste legislation and government regulations on E-waste management. [10M]