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Question Paper Code: U6504

M.E. DEGREE EXAMINATION, APRIL / MAY 2025

Elective

21PPE604– BIOENERGY FROM WASTE

(Regulations 2021)

(Common to ALL Branches)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Give brief description on LCA and MRF CO1- U (20)
Or
(b) Explain the methods involved in waste processing, size reduction and separation. CO1- U (20)
2. (a) Discuss about the composition, characteristics, generation, movement and control of landfill leachate and gases. CO2- U (20)
Or
(b) What is incineration? Explain briefly about its types. CO2- App (20)
3. (a) Discuss about the strategies to be followed for reducing environmental impacts. CO3- Ana (20)
Or
(b) Discuss about the environmental and health impacts of incineration. CO3- Ana (20)
4. (a) Explain the direct combustion of MSW-refuse derived solid fuel & industrial waste. CO4- U (20)
Or
(b) Design a waste to energy plant for cities, small townships and villages. CO4- App (20)

5. (a) How can plasma Arc gasification take garbage to electricity, CO5- Ana (20)
explain with a case study

Or

- (b) Discuss about the rules related to the handling, treatment and CO5- Ana (20)
disposal of MSW and BMW in India.