

Roll No. 

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

Total No. of Pages : 01

Total No. of Questions : 08

M.Tech. (ECE) (Sem.-3)

**WASTE TO ENERGY**

Subject Code : MTOE-301F-18

M.Code : 76548

Date of Examination : 14-12-22

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWELVE marks.

1. a) Explain classification of waste in detail.  
b) Discuss Agro based and Industrial waste briefly.
2. a) Explain the process of pyrolysis in detail.  
b) Discuss various types of pyrolysis.
3. Explain the design, construction and operation of Downdraft gasifier.
4. Explain design, construction and operation of Fixed bed combustor.
5. What is meant by Biomass resources? Classify based on their application.
6. Write short notes on :
  - a) Urban Waste to Energy Conversion
  - b) Biomass Energy Programme
7. a) List out advantages of gasification over incineration.  
b) Explain various types of digestors for waste management briefly :
8. Write short notes on :
  - a) Charcoal
  - b) Pyrolytic oils
  - c) Pyrolytic gases.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**