

**CERTIFICATE IN ENERGY  
TECHNOLOGY AND MANAGEMENT  
(CETM)**

**Term-End Examination  
June, 2023**

**OEY-002 : RENEWABLE ENERGY  
TECHNOLOGIES AND MANAGEMENT**

*Time : 3 Hours*

*Maximum Marks : 70*

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**Note :** (i) *Attempt any seven questions.*

(ii) *All questions carry equal marks.*

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1. Define the following : 4×2.5=10

(i) Diffused radiation

(ii) Global radiation

(iii) Solar constant

(iv) Insolation

2. What is a solar cooker ? What are different types of solar cooker ? Also write advantages and disadvantage of solar cooker. 10

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3. Describe the construction and working of solar lantern. Also write its advantages and disadvantages. 10
4. Explain construction and working of floating drum biogas plant with schematic diagram. 10
5. Explain biogas-slurry sludge management system. 10
6. How solar passive cooling is done ? Also explain some of the cooling systems with proper schematic. 10
7. (i) Describe difference between open and closed solar water heating system. 5  
(ii) Explain building integrated solar photovoltaic technology. 5
8. Draw a heat schematic diagram of solar drying unit. Also explain each component of dehydration system. 10
9. Write short notes on any *two* of the following :  
 $2 \times 5 = 10$ 
  - (i) Mix mode dryer
  - (ii) Trombe wall
  - (iii) Active solar distillation

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