

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

**Term-End Examination**

**December, 2021**

**OEY-002 : RENEWABLE ENERGY  
TECHNOLOGIES AND THEIR USES**

*Time : 3 hours*

*Maximum Marks : 70*

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**Note :** Attempt any **five** questions. All questions carry equal marks.

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1. (a) Explain the construction and working of box type solar cooker. 7
- (b) Explain the working of evacuated tube collector. Also write its advantages. 7
2. (a) Explain photovoltaic effect. Also, draw and explain the I-V characteristics of a solar cell. 7
- (b) Describe the construction and working of solar lantern. 7

3. Explain different biomass conversion processes in detail. 14
4. (a) Discuss the three main stages of drying processes. 7
- (b) What are the different modes of drying which are widely practised ? Explain. 7
5. (a) Describe the following : 7
- (i) Evaporative Cooling
- (ii) Trombe Wall
- (b) Describe the difference between open and closed loop solar water heating system. 7
6. (a) Explain greenhouse effect and global warming. 7
- (b) Describe the concept of daylighting. 7
7. Write short notes on any **two** of the following : 2×7=14
- (a) Solar Still
- (b) Non-porous Type Solar Air Heater
- (c) Pyrolysis
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