

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

**Term-End Examination**

**June, 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 different factors on which the amount of solar radiation that reaches on a particular “spot” on the Earth’s surface depends. 7
- (b) Explain construction and working of built-in-storage solar water heater. 7
2. What are the various important aspects for making Solar PV system ? Explain in detail. 14
3. (a) What is the main difference among batch plants, continuous plants and semi-continuous plants ? 7
- (b) What are the different design parameters for sizing/designing the digester ? 7

4. (a) With a neat schematic diagram, explain solar drying system. 7
- (b) Explain the difference between Natural and Forced circulation dryers. 7
5. (a) Describe the following : 7
- (i) Solar passive cooling system
- (ii) Solar heat gain factor
- (b) Explain building integrated solar photovoltaic technology. 7
6. (a) Explain the impact of greenhouse effect on the environment. 7
- (b) Describe different steps for reducing greenhouse effect. 7
7. Write short notes on any **two** of the following :  $2 \times 7 = 14$
- (a) Solar Greenhouse Dryer
- (b) Kirchhoff's Law of Radiation and Advantage of Selective Surface
- (c) Dish Type Solar Cooker
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