

CETM-2025

ASSIGNMENT BOOKLET

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

Last date for submission:

15th May, 2025

30th September, 2025



**School of Engineering and Technology
Indira Gandhi National Open University
Maidan Garhi, New Delhi-110 068**

Dear Student,

We advise you to go through your programme guide carefully and read the section pertaining to assignments. A weightage of 30 percent, as you are aware, has been earmarked for continuous evaluation which would consist of **one tutor-marked assignment** for each of OEY 001, OEY 002 and OEY 003 of this course. You have to score a minimum of 40 marks out of 100 marks in each of the assignments. **Submit your assignment response at your Study Centre.**

Instructions for Formatting Your Assignments

Before attempting the assignment please read the following instructions carefully.

- 1) On top of the first page of your TMA answer sheet, please write the details exactly in the following format:

ENROLMENT NO:

NAME:

ADDRESS:

.....

.....

COURSE CODE:

COURSE TITLE:

ASSIGNMENT NO.:

STUDY CENTRE: **DATE:**

PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.

- 2) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
- 3) Leave 4 cm margin on the left, top and bottom of your answer sheet.
- 4) Your answers should be precise.
- 5) While solving problems, clearly indicate the question number along with the part being solved. Be precise. Recheck your work before submitting it.
- 6) **The assignment should be in your own handwriting. Typed assignments will not be accepted.**

Answer sheets received after the due date shall not be accepted.

We strongly feel that you should retain a copy of your assignment response to avoid any unforeseen situation and append, if possible, a photocopy of this booklet with your response.

We wish you good luck.

Assignment-2
(To be done **after** studying the course material)

Course Code: OEY 002

Assignment Code: OEY-002/TMA/2025

Maximum Marks:100

Note:

1. In any question, whenever we ask you to suggest an activity we expect you to give one other than those covered in the units.
 2. For any question worth 5 marks the word limit is 200 words, for a 10 mark question it is 350 words, and for a 15 mark question it is 500 words.
 3. All questions are compulsory. The marks of each question are indicated against it.
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| Q 1. | What is the Kirchoff's Law of radiation and what are the main features of Solar radiation? | 10 |
| Q.2 | (a) Explain working of Solar Lantern with proper sketch. | 10 |
| | (b) Draw and explain current –voltage characteristics of a solar cell. What is packing factor? | 10 |
| Q.3 | (a) Explain schematic flow sheet for high rate farm scale digester. | 10 |
| | (b) Explain floating drum biogas digester with neat diagram. Also write its advantages and disadvantage | 10 |
| Q.4. | (a) Explain the Trombe wall in detail. Also explain effect of window orientation. | 10 |
| | (b) Draw the block diagram of solar drying system and explain its different component. | 10 |
| Q.5 | (a) Explain Solar water heater with neat schematic diagram. Also compare it with electric heater in terms of advantages and disadvantages. | 10 |
| | b) Write short notes on following: | |
| | (i). Standalone PV System | 05 |
| | (ii). Solar air heater | 05 |