

Dear Student,

Please read the information on assignments in the Programme Guide that we have sent you after your enrolment. A weightage of 30%, as you are aware, has been earmarked for continuous evaluation, **which would consist of one tutor-marked assignment** for this course. The assignment for MST-002 has been given in this booklet.

Instructions for Formatting Your Assignments

Before attempting the assignment, please read the following instructions carefully:

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

ENROLLMENT NO:	
NAME :	
ADDRESS:	
	
	
PROGRAMME CODE:	
COURSE CODE:	
COURSE TITLE:	
STUDY CENTRE:	
DATE:	

PLEASE FOLLOW THE ABOVE FORM AT 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) This assignment is to be submitted at the Study Centre.

We strongly suggest that you should retain a copy of your answer sheets.

- 6) This assignment is valid up to December 31, 2026.
- 7) **You cannot fill the Exam Form for this course** till you have submitted this assignment. So solve it and **submit it to your Study Centre at the earliest**. If you wish to appear in the **TEE, June 2026**, you should submit your TMAs by **March 31, 2026**. Similarly, if you wish to appear in the **TEE, December 2026**, you should submit your TMAs by **September 30, 2026**.

We wish you good luck.

(To be done **after** studying the course material)

Course Code: BEY008

Course Title: Solar Energy

Assignment Code: BEY008/TMA/2026

Maximum Marks: 100

Last Date of Submission: 31st October 2026 for December 2026 Session

And 30th April for June 2027 Session

Note: Attempt all questions. All questions carry equal marks.

Q.1	Describe the different solar angles used to determine the position of the Sun relative to a surface	10
Q.2	Explain the estimation of monthly average daily global and diffuse solar radiation on a horizontal surface and global radiation on a tilted surface.	10
Q.3	Describe the working principles and applications of pyranometer, pyrheliometer and sunshine recorder	10
Q.4	Explain the construction, working of a flat plate solar collector. Explain all components of it with support of diagram.	10
Q.5	Explain the construction, working principle of an evacuated tubular collector with neat schematic diagram.	10
Q.6	What is the photovoltaic effect and important parameters of a solar cell? Also explain solar cell efficiency and its I-V characteristics.	10
Q.7	Write short notes on the following: (i) Parabolic Dish collector (ii) Building integrated PV (BIPV) systems	10
Q.8	Explain the construction, parameters and performance of a solar PV module and array, including their series and parallel connections.	10
Q.9	Explain the design and working of a solar distillation system with neat schematic.	10
Q.10	Explain the design and operation of standalone, grid-connected and rooftop solar PV systems.	10