Assignment Booklet

BSCAEY Programme

B.Sc (Applied Sciences - Energy)

Second Semester	
BEY-002	Energy Resources
BEY-003	Fluid Mechanics
BEY-005	Energy Efficiency and Management
BEY-018	Linear Algebra and Calculus
BEY-020	Computer Basics and PC Software (4)

SCHOOL OF ENGINEERING & TECHNOLOGY
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
Maidan Garhi, New Delhi – 110 068

JANUARY 2026

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 wouldconsist of one tutor-marked assignment** for this Programme. The assignment for BSCAEY (first semester) 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 FORMAT STRICTLY TO FACILITATE EVALUATION ANDTO 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) **These assignments submitted should be hand written in your own hand writing.**

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

6) **You cannot fill the Exam Form without** submission of the assignments. So solve it and **submit it at the earliest.** If you wish to appear in the **TEE, June 2026,** you should submit your TMAs by **April 30, 2026.** Similarly, if you wish to appear in the **TEE, December 2026,** you should submit your TMAs by **September 30, 2026.**

7) Assignments will be submitted at **your respective regional centre.**

We wish you good luck!

Assignment -3

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

Course Code: BEY-005
Course Title: Energy Efficiency and Management
Assignment Code: BEY-005/TMA/2026
Maximum Marks: 100

Last Date of Submission: May 31, 2026 (For June TEE), September 30, 2026 (For December TEE)

Note:

1. **All questions are compulsory.**

Q.1	Discuss the importance of conducting energy audits in industries and how they contribute to sustainable energy management.	10
Q.2	Discuss the role of the Bureau of Energy Efficiency (BEE) and the National Action Plan on Climate Change (NAPCC) in promoting sustainable energy use.	10
Q.3	Discuss how risk and sensitivity analysis help in making financial decisions for energy conservation projects.	10
Q.4	Discuss the importance of Sankey diagrams in analyzing energy flows and communicating results in energy management.	10
Q.5	Discuss how efficient combustion control reduces emissions and enhances system performance.	10
Q.6	Discuss common energy-saving opportunities in boiler and steam distribution systems. Explain how furnace classification based on fuel type and heat transfer mechanism affects energy efficiency.	10
Q.7	Discuss various technologies used for waste heat recovery and their applications in different sectors.	10
Q.8	Discuss the role of demand-side management in achieving electrical energy efficiency in industries.	10
Q.9	How can motor load surveys and performance assessments lead to significant energy savings?	10
Q.10	Write short notes on the following: a) flow control strategies to improve the efficiency of fans b) energy-efficient lighting technologies	10