
DSCDM July - 2026

ASSIGNMENT BOOKLET

**Diploma in Smart City Development and Management
(DSCDM)**

Last date for submission:

30th April 2027

**School of Engineering and Technology
Indira Gandhi National Open University
Maidan Garhi, New Delhi - 110068**

Dear Student,

We advise you to go through your course material carefully and read all the units pertaining to assignments. A weightage of 30 per cent, as you are aware, has been earmarked for continuous evaluation which would **consist of one tutor-marked assignment** for each of MIO – 001, MIO – 002, MIO – 003, MIO – 004 and MIO – 005 of these courses. You need to score a minimum of 40 marks out of 100 marks in each of the assignments. **Submit the handwritten assignments at your Study Centre or your Regional Centre or Programme Coordinator, DSCDM, Room No.104, Block-C, SOET, IGNOU Campus, Maidan Garhi, New Delhi-68.**

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 full-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) Only handwritten assignments acceptable. No typed assignments

6) While solving problems, clearly indicate the question number along with the part being solved. Be precise. Recheck your work before submitting it.

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 -3
(To be done after studying the course material)

Course Code: MIO – 003
Course Title: SMART URBAN ENERGY AND SMART TRANSPORTATION SYSTEMS
Assignment Code: MIO – 003/TMA/2026 July
Maximum Marks: 100

1. Attempt all questions. All questions carry equal marks.

Q.1	(a) Discuss the various applications of solar energy in a smart city.	5
	(b) Explain the goals of smart lighting in brief.	5
Q. 2	(a) Discuss the concept of Prognostics in Energy Management Systems.	5
	(b) Explain the smart grid electricity distribution system, with the help of a neat sketch.	5
Q. 3	(a) What is BRT? Explain the principles to be followed in developing BRT system.	5
	(b) Discuss the various stages of intelligent transportation planning in detail.	5
Q. 4	(a) Explain the centralized traffic control and monitoring system.	5
	(b) Discuss the features of Connected Vehicles.	5
Q. 5	(a) Discuss the challenges of an Autonomous Vehicle.	5
	(b) Define IoT and explain its application in transportation sector.	5
Q. 6	(a) Write a detailed study on smart transportation system	5
	(b) Explain Solar Photovoltaic System.	5
Q. 7	(a) Discuss the various applications of solar energy in a smart city	5
	(b) Explain the goals of smart lighting in brief	5

Q. 8	(a) Distinguish between Smart grid and Micro grid.	5
	(b) Differentiate between Battery Electric Vehicle and Hybrid Electric Vehicle.	5
Q. 9	(a) Explain Automated Parking. How Automated Parking is done in a Smart City.	5
	(b) Explain Vehicle Tracking System in a smart city.	5
Q. 10	Write short notes on the following: (a) Vehicle Diagnostics Analysis (b) Biomass Energy	5+5=10