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

Course Code: MIO – 002
Course Title: Smart Technologies (Hardware and Software)
Assignment Code: MIO – 002/TMA/2026 July
Maximum Marks: 100

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

Q. 1	Define IoT. Explain the different characteristics of IoT. Discuss the benefits of IoT.	10
Q. 2	Define IIoT and IoE. Discuss few applications of IoE.	10
Q. 3	What is Smart Grid? What are the different components of smart grid? Explain with a neat diagram.	10
Q. 4	What is Blockchain Technology? Explain the evaluation of blockchain technology. Discuss the impact of blockchain technology in the financial sector.	10
Q. 5	Discuss in detail, various applications and benefits of blockchain technology in healthcare sector with suitable examples.	10
Q. 6	What is AI? Discuss different applications of AI. Also discuss biases in AI.	10
Q. 7	Briefly describe the various AI and ML challenges in key components of Smart Cities.	10
Q. 8	What is a sensor? How do you classify sensors? Discuss various sensor applications in Smart Cities.	10
Q. 9	What is Data Science and Big Data? Discuss the different characteristics of Big Data. Explain different applications of Big Data in Smart Cities.	10
Q.10	What is SCADA? Explain the function of 'Host SCADA'. Discuss data flow, data processing and tagging in SCADA.	10