

ASSIGNMENT BOOKLET

**CERTIFICATE IN SMART CITY
DEVELOPMENT AND MANAGEMENT (CSCDM)**

Last date for submission:

**30th April 2026 for January 2026 Session
30th September 2026 for July 2026 Session**



**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 section 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 and MIO-004 of these courses. You have to score a minimum of 40 marks out of 100 marks in each of the assignments. Submit your assignment response at **Programme Coordinator (CSCDM), Block-C, School of Engineering & Technology, Indira Gandhi National Open University, Maidan Garhi, New Delhi - 110068**

Instructions for Formatting Your Assignments

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

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

ENROLMENT NO:

NAME:

ADDRESS:

.....

.....

COURSE CODE:

COURSE TITLE:

ASSIGNMENT CODE:

STUDY CENTRE: SOET, IGNOU Campus

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) 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 -1
(To be done **after** studying the course material)

Course Code: MIO-001
Course Title: Introduction to Smart Regions: Smart Cities and Smart Villages
Assignment Code: MIO-001/TMA/2026
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 10 marks question it is 350 words.**
 - 3. All questions are compulsory. All questions carry equal marks.**
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Q.1	Define a formal Region? What are the techniques employed to delineate a functional region?	10
Q.2	a) What are the factors of production? What is oligopoly?	5
	b) What are the different forms of markets? What are the essentials of a market?	5
Q.3	What are the three pillars of sustainability? How many sustainable goals have been adopted by the UN General assembly for 2030?	10
Q.4	a) Define smart city. What do you understand by Smart City? What are the Key Features of Smart City?	5
	b) What are the objectives of Smart City? Explain different layers of a Smart City?	5
Q.5	a) What are the different types of surveys? What do you mean by sampling?	5
	b) What are the core principles of a Smart infrastructure? How can IoT helps in detecting water leakages?	5
Q.6	a) Elaborate on the application of IoT in Smart Waste Management. List the advantages of Integrating Smart Waste Management in Cities?	5
	b) What are the advantages of Intelligent Transportation Systems offer in a Smart City. Elaborate on application of the IoT in Intelligent Transportation Management.	5
Q.7	a) Define rural development. What are the various components of rural development?	5
	b) Define Smart Villages? What are the main characters of Smart Villages? Why do we need Smart Villages in context of rural India?	5
Q.8	What are the main problems with respect to provision of sanitation facilities in rural India? Explain the provisions and progress of the Swachh Bharat Mission, Gramin.	10

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| Q.9 | a) | What is Governance? What is its importance? Explain the role of Smart Cities in Governance | 5 |
| | b) | Define Public Policy. What are its characteristics? List out and explain the characteristics of Public Policy. | 5 |
| Q.10 | a) | What are the strategic components of area-based development in Smart City Mission? | 5 |
| | b) | What is Clean Water Act? Explain Safe Drinking Water Act. Discuss in brief about European Legislation in water quality. | 5 |