ASSIGNMENT BOOKLET

**Certificate in Smart City Development and Management**

**(CSCDM)**

**Last date for submission:**

**30th November 2025**

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

**Course Code: MIO – 002**
**Course Title: Smart Technologies (Hardware and Software)**
**Assignment Code: MIO – 002/TMA/2025 July**
**Maximum Marks: 100**

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

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| **Q. 1** | How Internet of Things (IoT) is playing a key role in protecting the environment? Explain | 10 |
| **Q. 2** | What is Internet of Everything (IoE)? Discuss the applications of IoE in Supply Chain Management. | 10 |
| **Q. 3** | What do you understand by Smart Grid? Explain. Also compare existing grid with future grid. | 10 |
| **Q. 4** | Discuss the concept of Block Chain Technology. Explain the working of Blockchain Technology giving an example. | 10 |
| **Q. 5** | Discuss in detail, various applications and benefits of blockchain technology in financial sector with suitable examples. | 10 |
| **Q. 6** | What do you understand by Monte Carlo Tree Search? Explain. | 10 |
| **Q. 7** | Briefly describe the Iterative K-Means Clustering Algorithm? What is perceptron? Explain. | 10 |
| **Q. 8** | What are sensors and actuators? How do you classify sensors and Actuators? Discuss sensors and actuators applications in Smart Cities. | 10 |
| **Q. 9** | What is AI and ML? Explain the various applications of AI and ML in Healthcare Systems. | 10 |
| **Q.10** | What is SCADA? Discuss the Architecture of SCADA and Its applications. | 10 |