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MIO-002

**DIPLOMA IN SMART CITY
DEVELOPMENT AND
MANAGEMENT/CERTIFICATE IN
SMART CITY DEVELOPMENT AND
MANAGEMENT (DSCDM/CSCDM)**

Term-End Examination

June, 2025

**MIO-002 : SMART TECHNOLOGIES
(HARDWARE AND SOFTWARE)**

Time : 3 Hours

Maximum Marks : 70

***Note : Attempt any **seven** questions. All
questions carry equal marks.***

1. How can IoT devices be used to monitor and track the data of any patient ? Explain the complete process in detail.
2. Discuss the various benefits of ML technologies in IIoT. What potential benefits it can offer for optimizing industrial process and predicting equipment failures ?
3. What are the potential applications of smart grid technologies for demand response and energy efficient management system ?
4. What are the key components of a Blockchain system ? List out the limitations and challenges of this system.
5. What is smart grid and its elements ? How can Blockchain technology be used to improve supply chain management operations ?
6. Discuss AI, ML and DL in brief and list out some real life examples where these technologies can be used.

7. What are the applications of AI in the field of mobility and transportation ?
8. What do you mean by sensors ? How can the sensors be used in the development of the smart city ?
9. How are Big Data Analytics helpful in improving urban planning and public services ?
10. Explain SCADA architecture with a suitable block diagram.

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