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MIO-002

**DIPLOMA IN SMART CITY
DEVELOPMENT AND MANAGEMENT
(DSCDM)**

Term-End Examination

June, 2022

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

Time : 3 Hours

Maximum Marks : 70

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

1. What is IOT ? Explain the role of IOT in the context of smart city.
2. What is Industrial Internet of Things (IIOT) ? How does IIOT facilitate in automation of any manufacturing industry ? Explain with a suitable example.
3. What is Block Chain Technology ? Write down at least *five* merits and limitations of it.

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4. How does block chain technology bring transparency and security in implementing financial services ?
5. What is smart transportation ? Discuss the applications of blockchain technology in Vehicular Adhoc Networks (VANETs).
6. What do you understand by ‘supervised learning’ and ‘unsupervised learning’ in the context of a smart city ? Explain with a suitable example.
7. What is Artificial Intelligence (AI) ? Explain how AI being used in a ‘smart home’.
8. What is an actuator ? Classify actuators, based on energy type/power source.
9. What do you understand by big data ? Discuss the characteristics of big data.
10. Write short notes on any *two* of the following :
 - (a) Geographical Information System (GIS)
 - (b) Management Information System (MIS)
 - (c) Tagging in SCADA
 - (d) Cyber Physical Systems