
Question Paper consists of FIVE units, each carrying 14 marks
Each unit has TWO questions; either of them should be answered
All parts of a question must be answered at one place.

UNIT-I

Marks

- | | | | |
|----|----|---|----|
| 1. | a) | Explain the architecture of the Internet of Things and its core components. | 7M |
| | b) | Discuss various Application Layer Protocols used in IoT | 7M |
| | | (OR) | |
| 2. | a) | What are the major design principles for connected devices? Explain with suitable examples. | 7M |
| | b) | Define M2M communication and describe its role in IoT systems. | 7M |

UNIT-II

- | | | | |
|----|----|---|----|
| 3. | a) | Explain the modified OSI stack for IoT/M2M systems with a neat diagram. | 7M |
| | b) | Discuss the ETSI M2M domains and their high-level capabilities. | 7M |
| | | (OR) | |
| 4. | a) | Describe various communication technologies used in IoT/M2M. | 7M |
| | b) | Explain how gateways help in managing data and devices in IoT. | 7M |

UNIT-III

- | | | | |
|----|----|--|----|
| 5. | a) | Explain the design principles for web connectivity in connected devices. | 7M |
| | b) | Discuss various message communication protocols used in IoT. | 7M |
| | | (OR) | |
| 6. | a) | Compare and contrast web communication protocols for connected devices. | 7M |
| | b) | Describe how web connectivity enables integration of devices in IoT. | 7M |

UNIT-IV

- | | | | |
|----|----|--|----|
| 7. | a) | Explain the process of data acquisition and organization in IoT/M2M systems. | 7M |
| | b) | Discuss the role of analytics and business models in IoT-based services. | 7M |
| | | (OR) | |
| 8. | a) | Explain how IoT data is processed and connected to enterprise systems. | 7M |
| | b) | Describe how IoT/M2M data acquiring and storage supports business processes. | 7M |

UNIT-V

- | | | | |
|-----|----|---|----|
| 9. | a) | Discuss cloud computing models for IoT applications. | 7M |
| | b) | Describe the role of Xively, Nimbits in IoT application development. | 7M |
| | | (OR) | |
| 10. | a) | Describe the role of sensors, actuators, and RFID in IoT systems. | 7M |
| | b) | Describe the role of wireless sensor networks and participatory sensing in gathering real-world data. | 7M |