

Total No. of Questions: 6

Seat No.:

BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-V Computer Science & Engineering : WINTER: 2025
SUBJECT: INTERNET OF THINGS

Day : Friday
Date : 12/12/2025

W-30727-2025

Time : 02:30 PM-05:30 PM
Max. Marks : 60

NB :

1. All questions are COMPULSORY.
2. Figures to the right indicate FULL marks.
3. Draw neat labelled diagram wherever necessary.

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|-----------|---|------|
| Q. 1 | Define IoT. Discuss its essential features and applications in different domains. | (10) |
| OR | | |
| Q. 1 | Explain how IoT is transforming traditional systems into smart environments such as smart cities or smart healthcare. | (10) |
| Q. 2 | Describe the four pillars of IoT-M2M, SCADA, WSN, and RFID - with suitable examples. | (10) |
| OR | | |
| Q. 2 | Apply the IoT design methodology to propose a smart parking system for urban areas. | (10) |
| Q. 3 | Explain the working principle of the 6LoWPAN protocol and its importance in IoT networks. | (10) |
| OR | | |
| Q. 3 | Compare the functionalities and use cases of Modbus and Zigbee communication protocols. | (10) |
| Q. 4 | Explain the concept of a SkyNet IoT Messaging Platform and how it supports IoT communication. | (10) |
| OR | | |
| Q. 4 | Design a cloud-based IoT application using Python and Django framework. Describe its workflow. | (10) |
| Q. 5 | Describe the various challenges in designing secure IoT applications. | (10) |
| OR | | |
| Q. 5 | Analyze the role of data encryption and access control in ensuring IoT data security. | (10) |
| Q. 6 | Describe the key differences between IoT and IIoT with suitable examples. | (10) |
| OR | | |
| Q. 6 | Evaluate the benefits of IIoT in improving industrial productivity, safety, and sustainability. | (10) |
