

Code No: **R204105T**

R20

SET - 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
IV B. Tech I Semester Regular/Supplementary Examinations OCT/NOV 2025
INTRODUCTION TO INTERNET OF THINGS

(OPEN ELECTIVE)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks

UNIT-I

1. a) Explain the design principles for connected devices in IoT. [7M]
b) Describe the application layer protocols used in IoT. [7M]
(OR)
2. a) Describe the building blocks and architecture of IoT. [7M]
b) Explain how Internet connectivity enables IoT systems and describe its challenges. [7M]

UNIT-II

3. a) Discuss various communication technologies used in IoT systems. [7M]
b) Explain how standardization improves interoperability in IoT systems. [7M]
(OR)
4. a) Discuss the layers and standardizations used in IoT/M2M systems. [7M]
b) Describe data enrichment and data consolidation processes in IoT. [7M]

UNIT-III

5. a) Explain message communication protocols used in IoT. [7M]
b) Explain the design principles for web connectivity in IoT devices. [7M]
(OR)
6. a) Explain the security and privacy issues in web communication for IoT. [7M]
b) Describe how IoT devices connect to web servers and cloud platforms. [7M]

UNIT-IV

7. a) Explain the process of data acquisition in IoT and M2M systems. [7M]
b) Discuss transaction management in IoT-based business environments. [7M]
(OR)
8. a) Explain the role of analytics in IoT/M2M applications. [7M]
b) Explain how IoT integrates with existing enterprise business processes. [7M]

UNIT-V

9. a) Describe cloud computing service models in IoT context. [7M]
b) Discuss the role of actuators in IoT systems. [7M]
(OR)
10. a) Explain the concept of participatory sensing in IoT. [7M]
b) Discuss integration of cloud computing with IoT for scalable data management. [7M]
