



B.Tech VII Semester Regular/Supplementary Examinations, December 2024

INTERNET OF THINGS
(ECE)

Maximum Marks: 70

Date: 02.01.2025

Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks		(10X2M=20 Marks)	CO	Bloom Tx
1	List the applications of IoT.		1	R
2	Differentiate IoT and Artificial Intelligence.		1	Ap
3	What is Machine-to-Machine (M2M) communication?		2	R
4	Show the main components of SDN architecture?		2	U
5	List two challenges faced by wireless sensor networks.		3	R
6	Explain Gateway Prefix Allotment in IoT networking?		3	U
7	Name any two components of an Arduino board.		4	R
8	Define the term "Pin Configuration" in Raspberry Pi.		4	R
9	Outline the role of cloud storage in IoT systems?		5	U
10	Classify the significance of MQTT in IoT cloud communication?		5	U

Part-B

Answer All the following questions.		(5X10M=50Marks)	CO	Bloom Tx
11	A) Describe the IOT architecture in detail. [5M] B) Outline the concept of IoT Enablers and Connectivity Layers [5M]		1	U
OR				
12	A) Demonstrate IOT levels & deployment templates [5M] B) Summarize the logical design of IoT-functional blocks [5M]		1	U
13	A) Organize the evolution of IoT and its impact on modern technology. [5M] B) Identify the role of SDN and NFV in enhancing IoT network architecture. [5M]		2	Ap
OR				
14	Develop the network operator requirements for IoT system management and how they are met by NETCONF-YANG. [10M]		2	Ap

15	A) Explain the role of IEEE 802.15.4 in IoT connectivity. [5M] B) Discuss the key features of Wireless HART over traditional HART protocols in industrial IoT. [5M]	3	U
OR			
16	A) Summarize the challenges in implementing a Sensor Web and its role in real-time IoT data monitoring. [7M] B) Discuss the Modes of Detection in IOT. [3M]	3	U
17	A) Examine the components of an Arduino board with a labeled diagram. [5M] B) Elaborate on the concept of function libraries in Arduino. [5M]	4	An
OR			
18	A) Examine the architecture of Raspberry Pi with a detailed explanation. [5M] B) Provide an introduction to Raspberry Pi and discuss its relevance in IoT projects. [5M]	4	An
19	Explain the architecture and functionality of AutoBahn for IoT, highlighting its advantages. [10M]	5	U
OR			
20	A) Describe WAMP and its significance in enabling real-time communication for IoT applications. [7M] B) Discuss the features and benefits of using Xively Cloud. [3M]	5	U