



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

INTERNET OF THINGS
(EEE)

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 functional blocks of IoT.		1	1
2	List out the Features of IoT.		1	1
3	Define Software defined Network		2	2
4	List out the key elements of NFV architecture		2	1
5	Where IEEE. 802.15.4 can be deployed?		3	1
6	Write the components of WSN used in IoT applications.		3	1
7	Write the features of Arduino-UNO boards.		4	1
8	How to run Raspberry pi in headless mode?		4	2
9	List out cloud storage models.		5	1
10	Write the features of Xively Cloud.		5	1

Part-B

Answer All the following questions.		(5X10M=50Marks)	CO	Bloom Tx
11	A) Discuss IoT application layer protocols, in detail? [5M]		1	2
	B) Illustrate IoT communication models with neat sketches? [5M]		1	2
OR				
12	A) Explain the different layers in the physical design of IoT. [5M]		1	2
	B) What are the top three challenges for IoT? [5M]		1	1
13	A) List and explain the differences and similarities between IoT and Machine-to-Machine (M2M) communication [5M]		2	1
	B) What are the key elements in SDN? [5M]		2	2
OR				
14	What is the role of IoT NETCONF-YANG management? Explain. [10M]		2	2
15	A) Compare FIVE differences between the IoT and WSN. [5M]		3	2
	B) Explain the procedure to select right connectivity technology for IoT. [5M]		3	2
OR				

16	Analyze the differences between IEEE 802.15.4, ZigBee, and Bluetooth protocols in terms of their suitability for IoT applications. Compare their range, data rate, power consumption, and typical use cases. [10M]	3	4
17	A) Write the step-by-step procedure to setup Arduino IDE in computing systems. [5M]	4	3
	B) Discuss in-detailed about raspberry Pi architecture. [5M]	4	3
	OR		
18	A) How debugging works in Arduino? [5M]	4	3
	B) Explain the basic setup to be followed for pin configuring Raspberry Pi. [5M]	4	2
19	A) What is the significance of IoT platform design methodology. [5M]	5	2
	B) How Amazon web services are used for IoT applications? Explain [5M]	5	2
	OR		
20	A) Explain cloud storage models of IOT. [5M]	5	3
	B) What is WAMP protocol? Explain in detail. [5M]	5	3