

CS115504
BTech (Fifth Semester) Examination
Nov-Dec 2023
[CSE , DS, IOTCBCT]

Internet of Things

Time Allowed: 3 Hours

Maximum Marks: 100

Minimum Marks: 35

Note: Attempt all questions. Part (a) from each question is compulsory and carries 4 marks, attempt any two parts from part (b), (c) and (d) carrying 8 marks each.

Q. No	Questions	Marks	CO	BL	PI
Q.1	a Differentiate IoT and M2M.	4	CO1	L2	1.3.1
	b What do you mean by Bigdata? Discuss 5 V's of Big data.	8	CO1	L2	1.3.1
	c Draw and Explain 7 layers of IoT architecture.	8	CO1	L5	1.3.2
	d Differentiate IoT Level-3 and Level-4 with block diagram.	8	CO1	L5	1.3.2
Q.2	a What is Zigbee?	4	CO2	L2	2.1.2
	b Explain MQTT and CoAP. Compare these two protocol based on their features.	8	CO2 CO3	L4	2.1.2
	c Discuss HART and Wireless HART.	8	CO2 CO3	L4	2.1.2
	d Write short note on 802.11 and 802.15.	8	CO2	L4	2.1.2
Q.3	a What do you mean by Active and Passive Sensor?	4	CO3	L2	2.2.2
	b Write down Sensors Characteristics.	8	CO3	L2	2.2.3
	c What do you mean by Sensor? Write the name of any 8 Sensors with their usage/working.	8	CO3	L5	2.2.3

	d	Define Actuators and explain its type.	8	CO3	L5	2.2.3
Q.4	a	What is DHT11.	4	CO3	L5	1.4.1
	b	Write a Program to Blink two LEDs Connected to D5 and D6 in alternate manner. Explain each functions used in this program.	8	CO3	L2	1.4.1
	c	What do you mean by Interoperability in IoT? What can be the problem due to lack in interoperability?	8	CO4	L4	1.4.1
	d	Write Short note on Raspberry Pi.	8	CO5	L4	1.4.1
Q.5	a	Define Inter cloud.	4	CO4	L4	2.2.3
	b	Discuss the Evolution of Cloud Computing.	8	CO4	L5	2.2.3
	c	Explain 3 Service Models of Cloud.	8	CO5	L2	2.2.3
	d	What do you mean by Edge, Mist, Fog and Cloud Computing? How they are related with each other?	8	CO5	L4	2.2.3

CO- Course Outcomes, BL- Bloom Taxonomy, PI- Performance Indicator