USN								21CST702

B. E. Degree (Autonomous) Seventh Semester End Examination (SEE), Dec 2024

Internet of Things

(Model Question Paper - III)

[Time: 2 Hours]		[Maximum Marks: 50]

Instructions to students: Answer any 5 full question

Q. No.		QUESTIONS	Marks	COs	RBT Level
1	A)	Give the formal definition of IoT and Describe the Logical design of IoT	05 M	CO1	L1,L 3
	B)	Explain the characteristics of IoT and Discuss the Functional block of IoT with a neat diagram	05 M	CO1	L1,L 3
OR					
2	A)	Explain the IoT deployment template for Smart Home Automation with suitable diagram	06 M	CO1	L1,L3
	B)	Describe the web socket based communication API in detail with a neat diagram.	04 M	CO2	L3
3	A)	Explain in detail M2M system Architecture with neat diagram	04 M	CO2	L3
	B)	Describe the various stages/steps in IoT Design Methodology	06 M	CO4	L4
OR					
4	A)	Describe how SDN can be used for various levels of IoT.	05 M	CO4	L4
	B)	Define NFV, its applications within IoT environments, and its advantages	05 M	CO2	L2
5	A)	Explain Domain specific IoT application for Health and Lifestyle	05 M	CO2	L3
	B)	Explain Domain specific IoT application for Environment	05 M	CO4	L4
OR					
6	A)	Explain Domain specific IoT application for Energy	05 M	CO2	L3
	B)	Explain Domain specific IoT application for Logistics	05 M	CO4	L4
7	A)	Discuss components like microcontrollers, microprocessors, sensors, actuators, and communication modules that form the foundation of IoT devices.	05 M	CO4	L4
	B)	Explain the architecture and features of the Raspberry Pi board in IoT applications.	05 M	C04	L3
OR					
8	A)	Describe the Arduino platform and its use in IoT projects.	05 M	C04	L2
	B)	Explain the role of the Tiva C series microcontroller in IoT and its main characteristics.	05 M	C04	L2
9	A)	Evaluate the challenges and considerations in choosing data analytics tools for IoT environments.	05 M	C05	L3
	B)	Describe the components of Hadoop, including HDFS and MapReduce, and how they support large-scale data storage and processing.	05 M	C05	L3
OR					
10	A)	Explain how Apache Storm is used for real-time data processing in IoT applications.	05 M	C05	L2
	B)	Describe Apache Spark and its advantages over Hadoop MapReduce for real-time data processing in IoT.	05 M	C05	L2