Roll No. | | | | | | | | | | |

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COER University

END SEMESTER EXAMINATION, EVEN SEM 2022-23

Time : 3 hours
Program Name : M.Tech.(CSE)
Course Name : Internet of Things

Total Marks : 100
Semester : II
Course Code : MTCS218

Note: All questions are compulsory. No student is allowed to leave the examination hall before the completion of the time.

Q. No 1	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Define the role of Data Processing Layer and Application layer in IOT architecture	CO 1	2
(b)	Illustrate the technical specification of Arduino board with diagram.	CO 1	3
(c)	What are the main features of Web 3.0?	CO 1	1
(d)	Discuss Beagle Bone Black for design of IoT systems.	CO 1	2
(e)	Analyze requirements needed for working of Raspberry Pi. What are its different models available?	CO 1	4

Q. No 2	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Summarize the need of BACnet protocol for building automation.	CO 2	2
(b)	Describe how Wireless Sensor Network became one of the enabling technologies of IoT.	CO 2	3
(c)	Demonstrate Supervisory Control and Data Acquisition with diagram. What are the major components of SCADA?	CO 2	3
(d)	Mention the communication protocols used for M2M local area network.	CO 2	2
(e)	Analyze in detail IEEE 802.15.4 technology, illustrating MAC format and architecture.	CO 2	4

Q. No 3	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Classify the Functional block of IoT ecosystem.	CO 3	3
(b)	Explain the concept of Infrastructure as a Service (IaaS) and give an example of a cloud provider that offers this service.	CO 3	1
(c)	Describe the seven layers of IoT reference model with diagram.	CO 3	1
(d)	Discuss Centralized, Decentralized and Hybrid deployment model of IoT architecture with its advantages and disadvantages.	CO 3	2
(e)	Evaluate the role of cloud computing in the growth of the Internet of Things (IoT).	CO 3	4

Q. No 4	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Examine the components of a unified multitier WoT architecture and their interrelationships.	CO 4	3
(b)	Analyze the role of platform middleware in the development of WoT applications.	CO 4	4
(c)	Analyze WoT application that uses to monitor weather situation in a city.	CO 4	4

Q. No 5	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Define some examples of real-world applications of Smart Grid technology in managing power demands.	CO 5	2
(b)	How does the Internet of Things increase autonomy in collaborative production environments?	CO 5	1
(c)	How can IoT technology be used to improve the safety and reliability of electrical vehicle charging infrastructure?	CO 5	1

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