Reg. No. : | | | | | | | | | | | | |

Question Paper Code: U6F02

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Sixth Semester

Computer Science and Engineering

21UCD602- IOT DESIGN

(Common to CSD Engineering)

(Regulations 2021)

Duration: Three hours | Maximum: 100 Marks

Answer All Questions

PART A - (10 x 2 = 20 Marks)

1.	Define Actuators and its types.	CO1-U
2.	Concisely outline the fundamental Difference between Physical design of IoT and Logical design of IoT?	CO1-U
3.	Briefly explain the evolution from M2M to IoT.	CO1-U
4.	What is OGC and how it works?	CO1-U
5.	Define SCADA.	CO1-U
6.	Define Actuators and its types.	CO1-U
7.	What is the role of cloud computing in supporting IoT applications?	CO1- U
8.	What are the basic steps involved in setting up an Arduino board for IoT projects?	CO1- U
9.	Define Arduino and its significance in IoT development	CO1-U
10.	Name a popular cloud service used for IoT applications.	CO1-U

PART – B (5 x 16= 80 Marks)

11.	(a)	Imagine a smart home environment where residents can control and monitor various devices and systems by applying various IoT protocols	CO2-App	(16)

Or

	(b)	Reflect on a real-life scenario where your understanding of	CO2-App	(16)

communication models proved to be beneficial. Describe the situation, the specific communication model you applied, and how it contributed to achieving successful outcomes.

12.	(a)	Briefly Explain the M2M Architecture in Detail.	CO1-U	(16)
		Or		
	(b)	Write a detailed note on IETF reference architecture.	CO1-U	(16)
13.	(a)	Explain in detail about RFID protocols with neat diagram	CO1-U	(16)
		Or		
	(b)	Briefly explain about Network layer security for IoT environment.	CO1-U	(16)
14.	(a)	Explain the process of reading data from sensors using the chosen microcontroller, emphasizing the use of specific libraries or functions.	CO1- U	(16)
		Or		
	(b)	Explain the significance of connecting a microcontroller to the internet using WiFi in IoT applications	CO1-U	(16)
15.	(a)	Describe the significance of implementing IoT on hardware platforms such as Arduino and Raspberry Pi	CO2-App	(16)
		Or		
	(b)	Demonstrate the IoT based Humidity Monitoring	CO2-App	(16)