U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

May 2023 Semester End Make-Up Examinations

Programme: B.E. **Semester: V**
Branch: Computer Science and Engineering **Duration: 3 hrs.**
Course Code: 20CS5PEIOT **Max Marks: 100**
Course: Internet of Things **Date: 17.05.2023**

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

B.M.S.C.E. - ODD SEM 2022-23

UNIT - I

1	a)	Define IoT. Elucidate the characteristics of IoT.	**10**
	b)	Using an appropriate sketch, explain a typical IoT device.	**10**

UNIT - II

2	a)	Imagine you want a sensor on a robot to swing through an arc or move to a position you select. Write a program to implement this.	**10**
	b)	Write a program to send serial data from ARDUINO and display as text, decimal, hexadecimal or binary values	**10**

OR

3	a)	How do you measure distance with the Ultrasonic Sensor?	**10**
	b)	Design and implement Smart Light System based on Ambient light.	**10**

UNIT - III

4	a)	Write a code to read the code present on RFID tag and print it in serial monitor.	**10**
	b)	Explain the IOT Reference Architecture and its functional responsibility of each layer.	**10**

OR

5	a)	Explain why CoAP protocol is suitable than HTTP protocol for an IoT system.	**10**
	b)	What are the major services of 6LoWPAN adaptation layer? With a neat diagram explain in detail 6LoWPAN Mesh Header Structure.	**10**

UNIT - IV

6	a)	Define the following in the context of WAMP. (i) Transport (ii)Session (iii) Client (iv) Router (v) Application Code	**10**
	b)	Describe the architecture of Intel IoTivity.	**10**

UNIT - V

7	a)	Write a program to implement Amazon RDS.	**10**
	b)	Describe the Amazon Web Service S3.	**10**

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