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PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – October 2025

Date: 29-10-2025

Time: 02.30pm to 04.00pm

School: SOCSE	Program: B-Tech	
Course Code : CIT3406	Course Name: Cloud Computing for IOT	
Semester: VII	Max Marks: 50	Weightage: 25%

CO - Levels	CO1	CO2	CO3	CO4	CO5
Marks	24	26	-	-	-

Instructions:

- (i) *Read all questions carefully and answer accordingly.*
- (ii) *Do not write anything on the question paper other than roll number.*

Part A

Answer ALL the Questions. Each question carries 2marks.

5Q x 2M=10M

1	Define Internet of Things (IoT) and list its major components.	2 Marks	L1	CO1
2	Name two main functions of an Actuator in an IoT system.	2 Marks	L1	CO1
3	Briefly explain the term Cloud Computing for IoT.	2 Marks	L1	CO2
4	Identify two key differences between the MQTT and HTTP protocols in the context of IoT networking.	2 Marks	L1	CO2
5	State the primary purpose of the ESP8266 Wi-Fi module in an IoT project.	2 Marks	L1	CO2

Part B

Answer the Questions.

Total Marks 40M

6.	a.	Describe the Arduino Uno Architecture, focusing on the roles of its main functional units (e.g., Microcontroller, I/O ports, Memory).	10 Marks	L3	CO1
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Or

7.	a.	Explain with a neat block diagram how an Arduino reads data from a Digital Sensor and controls a Motor (an actuator), detailing the steps involved in the process.	10 Marks	L3	CO1
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8.	a.	Outline the basic steps required to establish wireless networking using the ESP8266 WiFi module to connect an IoT device to the internet.	10 Marks	L3	CO2
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Or

9.	a.	Discuss the fundamentals of Cloud Computing, elaborating on how it helps in the data storage and processing of information collected from various IoT devices.	10 Marks	L1	CO2
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10.	a.	Differentiate between a Sensor and an Actuator in an IoT system, providing at least two examples for each.	10 Marks	L1	CO1
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Or

11.	a.	An IoT application requires periodic updates of small data packets from a temperature sensor to a cloud platform. Suggest the most appropriate IoT communication protocol and justify your choice.	10 Marks	L3	CO2
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12.	a.	Explain the concept of the Arduino Simulation Environment (e.g., IDE and Simulators) and describe its significance in the development and testing of an IoT prototype.	10 Marks	L1	CO1
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Or

13.	a.	Describe the role of Cloud Platforms (e.g., AWS, Azure, GCP) in an end-to-end IoT solution and explain why they are preferred over local servers for large-scale data management.	10 Marks	L1	CO2
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