



# PRESIDENCY UNIVERSITY

BENGALURU

Roll No.														
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## 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	C01	C02	C03	C04	C05
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	C01
2	Name two main functions of an Actuator in an IoT system.	2 Marks	L1	C01
3	Briefly explain the term Cloud Computing for IoT.	2 Marks	L1	C02
4	Identify two key differences between the MQTT and HTTP protocols in the context of IoT networking.	2 Marks	L1	C02
5	State the primary purpose of the ESP8266 Wi-Fi module in an IoT project.	2 Marks	L1	C02

## 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	C01
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	C01

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	C02
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	C02

10.	a.	Differentiate between a Sensor and an Actuator in an IoT system, providing at least two examples for each.	10 Marks	L1	C01
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	C02

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	C01
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	C02