



# PRESIDENCY UNIVERSITY

BENGALURU

Roll No.														
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## Mid - Term Examinations - MARCH 2026

Date: 10 - 03- 2026

Time: 02:00pm - 03:30pm

<b>School:</b> SOCSE	<b>Program:</b> B.Tech Computer Science & Engineering (Internet of Things)		
<b>Course Code:</b> CIT2401	<b>Course Name:</b> Blockchain for IoT		
<b>Semester:</b> VI	<b>Max Marks:</b> 50	<b>Weightage:</b> 25%	

CO - Levels	C01	C02	C03	C04	C05
Marks	26	24			

### 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 a consensus mechanism in blockchain technology.	2 Marks	L1	C01
2	How is trust and security ensured in a distributed network in the context of blockchain technology?	2 Marks	L1	C01
3	Mention any two financial services use cases of blockchain.	2 Marks	L2	C01
4	State the role of adversary modeling in the design of secure IoT architectures.	2 Marks	L2	C02
5	Compare block ciphers and stream ciphers in the context of resource-constrained IoT devices.	2 Marks	L2	C02

## Part B

Answer the Questions.

Total Marks 40M

6.	a.	Explain the components of a blockchain system	10 Marks	L2	CO1
<b>Or</b>					
7.	a.	Discuss the role of trust in blockchain and how blockchain eliminates the need for intermediaries.	10 Marks	L2	CO1

8.	a.	Explain the concept of distributed storage and its advantages over centralized storage.	10 Marks	L2	CO1
<b>Or</b>					
9.	a.	Discuss blockchain in practice with real-world application examples.	10 Marks	L2	CO1

10.	a.	Explain the fundamentals of IoT security and justify the need for security in large-scale IoT deployment.	10 Marks	L2	CO2
<b>Or</b>					
11.	a.	Describe the role of message integrity in IoT communication. Explain how integrity attacks can be detected and prevented.	10 Marks	L2	CO2

12.	a.	Explain M2M security in IoT environments. Discuss the challenges and solutions for secure M2M communication.	10 Marks	L2	CO2
<b>Or</b>					
13.	a.	Compare IoT devices, embedded devices, and traditional computers in terms of architecture, functionality, and security.	10 Marks	L4	CO2