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# PRESIDENCY UNIVERSITY

## BENGALURU

### Mid - Term Examinations – October 2025

**Date:** 27-10-2025

**Time:** 11.00am to 12.30pm

<b>School:</b> SOCSE/SOE	<b>Program:</b> CIT	
<b>Course Code :</b> CIT3407	<b>Course Name:</b> IoT Data Analytics and Machine Learning	
<b>Semester:</b> VII	<b>Max Marks:</b> 50	<b>Weightage:</b> 25%

<b>CO - Levels</b>	<b>CO1</b>	<b>CO2</b>	<b>CO3</b>	<b>CO4</b>	<b>CO5</b>
<b>Marks</b>	<b>26</b>	<b>24</b>	-	-	-

**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**

<b>1</b>	Explain any two key characteristics of IoT devices.	<b>2 Marks</b>	<b>L2</b>	<b>CO1</b>
<b>2</b>	Outline the World forum architecture for IoT.	<b>2 Marks</b>	<b>L2</b>	<b>CO1</b>
<b>3</b>	Summarize the features of Zigbee.	<b>2 Marks</b>	<b>L2</b>	<b>CO1</b>
<b>4</b>	Define data exploration in the context of IoT data	<b>2 Marks</b>	<b>L1</b>	<b>CO2</b>
<b>5</b>	List any two common visualization tools used for IoT data.	<b>2 Marks</b>	<b>L1</b>	<b>CO2</b>

## Part B

### Answer the Questions.

**Total Marks 40M**

<b>6.</b>	<b>a.</b>	Classify sensor and actuator types in IoT with examples	<b>10 Marks</b>	<b>L2</b>	<b>CO 1</b>
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**Or**

<b>7.</b>	<b>a.</b>	Differentiate between MQTT queue and traditional message queues.	<b>10 Marks</b>	<b>L2</b>	<b>CO 1</b>
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<b>8.</b>	<b>a.</b>	Outline the structure of World Forum architecture of Internet of things.	<b>10 Marks</b>	<b>L2</b>	<b>CO 1</b>
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**Or**

<b>9.</b>	<b>a.</b>	Describe any four Application layer protocols in Internet of things.	<b>10 Marks</b>	<b>L2</b>	<b>CO 1</b>
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<b>10.</b>	<b>a.</b>	Explain the steps involved in exploring IoT data.	<b>10 Marks</b>	<b>L2</b>	<b>CO 2</b>
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**Or**

<b>11.</b>	<b>a.</b>	Illustrate the process involved in time series analysis.	<b>10 Marks</b>	<b>L2</b>	<b>CO 2</b>
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<b>12.</b>	<b>a.</b>	Illustrate the techniques to understand and improve data quality in IoT cloud processing.	<b>10 Marks</b>	<b>L3</b>	<b>CO 2</b>
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**Or**

<b>13.</b>	<b>a.</b>	Use suitable examples to Interpret the common techniques for exploring and visualizing IoT data.	<b>10 Marks</b>	<b>L3</b>	<b>CO 2</b>
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