## NATIONAL INSTITUTE OF TECHNOLOGY PATNA

## Department of Computer Science and Engineering MID SEMESTER EXAMINATION, July-December 2022

B.Tech(CSE): Semester-VII

Course Name: Internet of Things

Course Code: CS7401

Maximum Time: 2 hours Max. Marks: 30

## Instruction:

1. Attempt all questions.

2. Assume any suitable data, if necessary. (Any other Instruction need to provide by the concerned faculty)

3. The Marks, CO (Course Outcome) and BL (Bloom's Level) related to questions are mentioned on the right-hand side margin.

		Marks	CO	BL
1.	Explain the concept of piconets and scatternets.	3	CO6	Understand and Apply
2.	Explain various types of errors in sensors in detail	5	CO5	Remember and Understand
3.	Differentiate between MQTT and CoAP protocols on the basis of their models.	5	CO3	Analyze and Evaluate
4.	With a neat diagram, explain how actuators and sensors interact with physical world. Classify actuators based on energy type.	5	CO2	Analyze and Understand
5.	Explain any one connectivity protocol used by IoT.	5	CO5	Remember and Understand
5.	What is Zigbee? Explain 802.15.4 physical layer, MAC layer and security	7	CO5	Remember and Understand