NATIONAL INSTITUTE OF TECHNOLOGY PATNA
Department of Computer Science and Engineering
END SEMESTER EXAMINATION, July- December 2022

Branch: B.Tech CSE

Course Name: Internet of Things

Maximum Time: 3 hours

Semester-VII

Course Code: CS7401

Max. Marks: 60

Instruction:

1. Attempt all questions.
2. Assume any suitable data, if necessary.
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.	Describe IEEE 802.15.4 and tabulate the protocol stack utilizing IEEE 802.15.4.	(7)	CO2	BL1
2.	How does the ZigBee protocol work in Home Automation? Explain with a real-time example.	(7)	CO5	BL4
3.	Illustrate the Arduino Board details and differentiate it from the Raspberry Pi board.	(7)	CO4	BL5
4.	Differentiate between stationary WSN and MANET. Explain the essential properties of MANET.	(7)	CO1	BL2
5.	Write a case study on M2M network with its types, architecture, nodes, and Ecosystem.	10	CO2	BL3
6.	Explain Bluetooth Protocol Stack in detail.	(5)	CO2	BL1
7.	Write a short note on any two Communication/Transport protocols in IoT network.	(5*2 = 10)	CO2	BL1
8.	Explain the role and importance of data analysis in IoT networks.	(7)	CO5	BL5