



**AUTUMN MID SEMESTER EXAMINATION-2022**

School of Computer Engineering  
Kalinga Institute of Industrial Technology, Deemed to be University  
Subject Name: Internet of Things  
[Subject Code]: IT3007

Time: 1 1/2 Hours

Full Mark: 20

*Answer any four Questions including Q.No.1 which is Compulsory.*

*The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable and all parts of a question should be answered at one place only.*

1. Answer all the questions.

[ 1 x 5 ]

I) Which communication model can perform bidirectional, fully duplex mode of communication?

- A. Publish-Subscribe
- B. Exclusive Pair
- C. Push-Pull
- D. Request-Response

II) Which statement is not true for Publish-Subscribe Communication model?

- A. Publishers send the data to the topics which are managed by the broker.
- B. Consumers subscribe to the topics which are managed by the broker.
- C. When the broker receives data for a topic from the publisher, it sends the data to all the subscribed consumers.
- D. Publishers push the data to queues

III) Which one of the following protocols is lightweight?

- A. IP
- B. HTTP
- C. XMPP
- D. MQTT

IV) The RFID tags consists of an \_\_\_\_\_.

- A. Antenna
- B. Integrated circuit
- C. Both A and B
- D. None of the above

V) Which statement is/are TRUE?

I: For each physical entity, there will be a virtual entity in the domain model

II: Virtual entity is the representation of physical entity in digital world.

III: Physical entity is the representation of virtual entity in real world

- A. I and II
- B. I and III
- C. II and III

**Semester: 5th**

**Subject Name:- IoT & Code:-IT-3007**

**Branch (s): - CS/IT/CSSE/CSCE**

D. All statements

2. Describe the design methodology steps involved in IoT based smart lighting system, with appropriate diagrams. [ 5 Marks ]

3. Compare Machine-to-Machine system architecture with IoT and State 2 differences between REST and WEB Socket API. [ 3marks + 2Marks ]

4. Explain IoT level-5 and IoT level-3 and Application layer protocol XMPP and DDS [3 marks+ 2 Marks ]

5. Explain various enabling technologies related to IoT and State various applications of Home Automation System in brief. [ 4marks +1 Marks ]

\*\*\* Best of Luck \*\*\*