# TILAK MAHARASHTRA VIDYAPEETH, PUNE

# MASTER OF SCIENCE (M.SC) IN COMPUTER APPLICATIONS EXAMINATION: DECEMBER - 2023

## **SEMESTER-III**

Sub: Internet of Things (MSC -305 -22)

Date: 13/12/2023 Total Marks: 60 Time: 10.00 am to 12.30 pm

#### **Instruction:**

- 1. All questions are compulsory unless and otherwise stated.
- 2. Bold figures to the right of every question are the maximum marks for that question.
- 3. Candidates are advised to attempt questions in order.
- 4. Answers written illegibly are likely to be marked zero.
- 5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
- 6. Draw neat and labelled diagram wherever necessary.

### Q. 1. Answer the following in 2-3 lines. (Any 5)

(10)

- 1. What is the Internet Of Things (IoT)?
- 2. What is Zigbee?
- 3. What is WSN?
- 4. Define the term "Public Cloud"
- 5. Define the term "Non-repudiation".
- 6. Explain Digital Sensor with example.
- 7. Explain the use of Transducer.

#### Q. 2. Answer the following in short. (Any 4)

(20)

- 1. What are the disadvantages of IoT?
- 2. What are the challenges of IoT?
- 3. Explain mostly used sensors types in IoT.
- 4. Explain in detail architecture of Cloud Computing.
- 5. What is actuator? Explain its working with two examples.
- 6. What is RFID? Explain its application in IoT.

#### Q. 3. Answer the following in detail. (Any 3)

(30)

- 1. Define the term "Sensing". Explain sensor classes based on types & data types.
- 2. Write a program to generate traffic signal with LED.
- 3. What is cloud computing? Explain the Cloud of Things with example.
- 4. Explain the threats and security requirements in IoT.
- 5. Explain the IoT Environment characteristics.

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