# 2211000306026003
# EXAMINATION JUNE - 2025 (PURAK EXAM)
# BACHELOR OF SCIENCE (COMPUTER SCIENCE)
# (SIXTH SEMESTER)
# COMPUTER SCIENCE-VIII (PAPER-603-IOT) - LEVEL 2

**[Time: As Per Schedule]** **[Max. Marks: 50 ]**

**Instructions:**
**1. Fill up strictly the following details on your answer book**
   a. Name of the Examination: **BACHELOR OF SCIENCE (COMPUTER SCIENCE) (SIXTH SEMESTER)**
   b. Name of the Subject: **COMPUTER SCIENCE-VIII (PAPER-603-IOT) – LEVEL 2**
   c. Subject Code No: **2211000306026003**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |

Student's Signature

**Q.1 Answer any seven of the following short questions.** **14**

1. Provide an example of an IoT system where data is used to infer information and knowledge.
2. Why must IoT systems be self-adapting and self-configuring to function efficiently?
3. Define M2M (Machine-to-Machine) communication.
4. List and describe some examples of M2M applications.
5. Define a digital sensor. How does it differ from an analog sensor?
6. Explain the working and applications of an active IR sensor.
7. What is the function of a coordinator in a wireless sensor network (WSN)?
8. Explain the purpose of an ultrasonic sensor in IoT applications.

**Q.2 Answer any two of the following questions.** **12**

1. What is the definition of IoT? Discuss its key characteristics.
2. Illustrate the IoT architecture with detailed explanations of its layers.

3. Describe the physical design aspects of IoT.
4. Explain the various communication models used in IoT systems.

**Q.3 Answer any two of the following questions.** **12**

1. Expand the abbreviations: IaaS, PaaS, and SaaS. Discuss their significance.
2. Highlight the key differences between IoT and M2M communication.
3. Provide a detailed explanation of Wireless Sensor Networks (WSN).
4. What are embedded systems? Explain their role in IoT in detail.

**Q.4 Answer any two of the following questions.** **12**

1. List different types of sensors. Provide a detailed explanation of their applications.
2. Explain how IoT enhances smart home functionality with a detailed note.
3. Describe how IoT can be applied in environmental monitoring systems.
4. Describe how IoT applications contribute to health and lifestyle improvements.

*****