

(Please write your Exam Roll No.)

Exam Roll No. 02617002023

END TERM EXAMINATION

SIXTH SEMESTER [BCA] MAY-JUNE 2026

Paper Code: BCA-306

Subject: Internet of Things

Time: 3 Hours

Maximum Marks: 60

Note: Attempt all questions as directed. Internal choice is indicated.

Q1 Attempt **any five** of the following questions: (5×4=20)

- (a) Explain IOT & its Vision.
- (b) Explain data enrichment and consolidation.
- (c) Explain Sensor and Actuator in IOT and its types
- (d) Explain participatory sensing technology?
- (e) Explain ease of designing and affordability of IoT systems.
- (f) Explain RFID in detail along with its types.
- (g) Explain use of IOT in Mobiles and Tablets.

Q2 What is the advantage of having a layered architecture? Explain the Conceptual Framework and architecture of IoT with suitable diagram. (10)

OR

Q3 Explain IOT/M2M system layers and design standardizations. Differentiate the IoT and M2M. (10)

Q4 Explain Wireless Sensor Network (WSN) for IOT. What are the challenges and topologies of the WSN. (10)

OR

Q5 Explain the embedded computing. Explain and Differentiate Raspberry Pi and Beagle bone and Arm Cortex. (10)

Q6 Explain Wireless Medium Access Issues and MAC Protocol Survey. (10)

OR

Q7 Explain Arduino IDE and its libraries. Write a Program to use Temperature and Humidity Sensor. (10)

Q8 Discuss the development and security issues in IOT applications in detail. (10)

OR

Q9 Explain **any two** of the following: (5+5=10)

- (a) Smart metering
- (b) Home Automation
- (c) Smart Cards
