

**2111040103010002**  
**EXAMINATION MARCH-APRIL 2024**  
**MASTER OF COMPUTER APPLICATIONS**  
**(THIRD SEMESTER)**  
**INTERNET OF THINGS - LEVEL 1**

[Time: As Per Schedule]

[Max. Marks:70]

**Instructions:**

- 1. Fill up strictly the following details on your answer book**
  - a. Name of the Examination : **MASTER OF COMPUTER APPLICATIONS (THIRD SEMESTER)**
  - b. Name of the Subject : **INTERNET OF THINGS - LEVEL 1**
  - c. Subject Code No : **2111040103010002**
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:

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Student's Signature

**Q.1 Explain in detail (Any Two).**

**14**

- 1) Define IoT. Explain IoT Security and Risk Concerns.
- 2) IoT Architecture.
- 3) IoT Botnet.

**Q.2 Explain in detail (Any Two).**

**14**

- 1) Write a note on HTTP and CoAP.
- 2) Explain Wi-Fi and Zigbee in detail
- 3) Write a note on MQTT in detail.

**Q.3 Explain in detail (Any Two).**

**14**

- 1) What is a Wireless Sensor Network? Explain in detail how it's working.
- 2) List out the various sensors you have worked with. Explain any two in detail.
- 3) Write a note on the Wireless Adhoc Network.

**Q.4 Explain in detail (Any Two).**

**14**

- 1) Explain in detail with a pin diagram Arduino uno.
- 2) Write a detailed note on a microcomputer.
- 3) Draw a pin diagram to connect the LED and buzzer with esp32 and write a program to turn on each one for two seconds alternatively at an interval of One second.

**Q.5 (A) Explain in detail how we can send and receive data from a remote server.**

**7**

**OR**

(A) Write a detailed note on Raspberry Pi Architecture.

(B) Write a Program to start a counter from 5,4,3,2,1 in seven segments, and after the counter goes to 0, start Sensing the data from DHT11 and print Data on a Serial monitor.

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