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**School of University Polytechnic**

Diploma in Computer Science and Engineering

Mid Term Examination - May 2024

Duration : 90 Minutes

Max Marks : 50

**Sem IV - N1DF406B - Internet of Things IOT**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Explain the HLR and VLR role in IoT framework. K2 (2)
- 2) Define the MAC address. K1 (3)
- 3) Explain about the microprocessor, and how does it differ from a microcontroller. K2 (4)
- 4) Explain about the different types of sensors based on their principles of operation K2 (6)
- 5) Illustrate the key requirements for operating systems designed specifically for IoT devices. K3 (6)
- 6) Illustrate the benefits of using software as a service (SaaS) for managing IoT data and applications. K3 (9)
- 7) Analyze the features and advantages of IEEE 802.11 in wireless communication. K4 (8)
- 8) Analyze and Compare common wireless communication protocols such as Wi-Fi, Bluetooth, Zigbee, and LoRaWAN. K4 (12)

**OR**

- Analyze the features and advantages of Bluetooth technology for short-range wireless communication. K4 (12)