

School of University Polytechnic**Diploma in Computer Science and Engineering
Semester End Examination - Jun 2024****Duration : 180 Minutes
Max Marks : 100****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) Define about the uses of IoT. K1(2)
- 2) Explain the Wi-Fi used for internet access, streaming media, file sharing, and VoIP (Voice over Internet Protocol) communication in residential and business settings. K2(4)
- 3) Explain the function of a motion sensor and its applications in security systems and automation. K2(6)
- 4) Illustrate the characteristics and advantages of wireless communication compared to wired communication. K3(9)
- 5) Illustrate the common wireless communication protocols used in IoT platforms, such as Wi-Fi, Bluetooth, ZigBee, LoRaWAN, and NB-IoT. K3(9)
- 6) Examine the concept of anti-collision algorithms in RFID protocols and their role in improving tag identification efficiency in dense deployment scenarios. K5(10)
- 7) Analyze the role of IoT-connected wearable devices in collecting health-related data, such as heart rate, activity levels, and sleep patterns. K4(12)
- 8) Examine the process of Wi-Fi provisioning and authentication for IoT devices. K5(15)
- 9) Examine the SCADA protocols facilitate real-time monitoring, control, and data acquisition across distributed industrial systems? K5(15)
- 10) Discuss the key features of NB-IoT, including extended coverage, low power consumption, and high device density. K6(18)