

# School of Electrical Electronics and Communication Engineering

Electronics and Communication Engineering

ETE - Jun 2023

Time : 3 Hours

Marks : 100

## Sem IV - G2UB401T - IoT Technology and Applications

*Your answer should be specific to the question asked*

*Draw neat labeled diagrams wherever necessary*

1. Illustrate the uses of IoT in Health Care services K1 CO1 (5)
2. Sketch the functional Block diagram of Internet of Things. K2 CO1 (5)
3. Brief about the Physical Design of IoT K2 CO1 (5)
4. Illustrate the Major Components of IoT Architecture with suitable diagrams K3 CO3 (10)
5. Design a automatic home security system using Arduino UNO R3 K2 CO2 (10)
6. Mention the steps involved in Interfacing an Infrared Sensor with Raspberry Pi 3 K3 CO2 (10)
7. Analyse the top 5 challenges of implementing Industrial Internet of Things. K4 CO3 (10)

**OR**

- Analyse IIoT Sensors using suitable examples. Mention the applications of using IIoT Sensors. K4 CO3 (10)
8. What are the tools that is used in IoT and why? K4 CO2 (15)
  9. Expound Functional and Implementation viewpoints of Industrial IoT Reference Architecture. K5 CO3 (15)
  10. Design an intelligent parking assistance system using Ultrasonic Sensors. K5 CO4 (15)

**OR**

- Design a obstacle detection system by interfacing a IR Sensor with Arduino Uno R3 K5 CO4 (15)