



VIT
Vellore Institute of Technology
(Approved as a Deemed to be University under Section 3 of UGC Act, 1956)

Slot:D1+TD1+D2+TD2

School of Information Technology and Engineering

Summer-II Semester 2023-2024

Mid-Term

Programme Name & Branch : MCA

Course Name & code: Internet of Things & ITA6010

Class Number (s): VL2022230701051, VL2022230701053, VL2022230701055, VL2022230701088

Faculty Name (s): Prof. JOTHISH KUMAR M, Prof. SANTHOSH KUMAR S V N, Prof. KARTHIKEYAN D, Prof. DEENADAYALAN T

Exam Duration: 90 Min.

Maximum Marks: 50

General instruction(s): Answer All the Questions

1. Design an application by using IoT, where the location of vehicle is continuously monitored by sensors and coordinates are timely communicated to the base station. From the base station the locations of the vehicles are stored in temporal database. From the database the location of the vehicle and current location and route should be communicated with the end user periodically through SMS. 10
2. Compare the features of Zigbee and Bluetooth (with respect to standards, basic network size, maximum packet size, number of channels, baseband (kb/s), topology, protocol, traffic type battery life). Design a case study using Bluetooth / Zigbee for personal home network application. 10
3. Design a IoT based application protocols for an online book store. 10
4. Customer purchases a Coffee Machine and integrates it with cloud using a Mobile App. Using the mobile app, the customer can customize coffee preparation for different tastes, explore coffee farms virtually and interact with farmers. Explain M2M communication for the given scenario. 10
5. Design a logical design of IOT system for the evolution of Smart home automation. 10