PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech. Summer 2021-22 Examination

Semester: 8   Date: 28/03/2022
Subject Code: 203113483   Time: 10:30 am to 01:00 pm
Subject Name: Internet of Things   Total Marks: 60

Instructions:
1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 **Objective Type Questions** - (Fill in the blanks, one word answer, MCQ-not more than Five in **(15)** case of MCQ) (All are compulsory) (Each of one mark)
1. The huge number of devices connected to the Internet of Things has to communicate automatically, not via humans. What is this called?
   A) Skynet   B) Bot 2 Bot   **C)** Machine 2 Machine   D) Intercloud
2. What are the key components of a M2M system?
   A) Vortex DDS   B) Smart Homes   **C)** Sensors and Wi-Fi   D) Protocols
3. What does LTE stand for:
   A) Long Term Errors   B) Long Term Evolution
   C) Lengthy Terminal Estimation   D) Long Term Estimates
4. The computer devices and smart phones that have _____ with pressure sensor.
   A) Automotive Industry   B) Industrial   C) Aviation   D) Touch screen
5. According to analysts, for what can traditional IT systems provide a foundation when they're integrated with big data technologies like Hadoop?
   A) Big data management and data mining   B) Data warehousing and business intelligence
   C) Management of Hadoop clusters   D) Collecting and storing unstructured data
6. Are proximity sensors used in retail settings? True/False
7. IoT is a paradigm that involves ubiquitous presence in the environment. True/False
8. AI is considered as embedded. True/False
9. What is sketch in Arduino?
10. MQTT stands for:……………
11. What is function of a sensor ?
12. What are the cloud service models?
13. Identify Four Major Characteristic of IoT.
14. Define Big Data and explain the Vs of Big Data.
15. What is Data Virtualization?

Q.2 **Answer the following questions. (Attempt any three)** **(15)**
A) Discuss Architecture of M2M systems with its components.
B) What are security concerns related to IoT?
C) What is the difference between M2M and IoT?
D) Discuss various operating systems supported by Pi?

Q.3 A) Discuss Domain model specification of home automation IoT system. **(07)**
B) Discuss common standards that the IoT enabled devices are supposed to be complied with. **(08)**
OR
B) Discuss various cloud platforms used for IoT development. **(08)**

Q.4 A) Discuss smart health monitoring using IoT with the help of block diagram. **(07)**
OR
A) Explain step involve in IoT design methology with help of flow chart. **(07)**
B) 1. Draw pin configuration of Nodemcu version1.0 (Esp8266) and explain Various features of it. **(08)**
   2. Write short note on operational view specification of IoT home automation system.