[3 Hours]   **[80 Marks]**

Note :   1. Question 1 is compulsory
         2. Answer any three out of remaining questions
         3. Assume suitable data where required

Q1   Solve any 4
  a)   Define IOT with Conceptual Framework   **5**
  b)   Compare and contrast RFID with Bluetooth   **5**
  c)   What are the four big data strategies?   **5**
  d)   Explain IoT Data Analytics importance   **5**
  e)   Illustrate the components of IEEE 802.11 architecture.   **5**

Q2
  a)   Describe IoT World Forum (IoTWF) Standardized Architecture.   **10**
  b)   Explain the concept of Fog Computing with Diagram.   **10**

Q3
  a)   Draw and explain Architecture of MQTT with diagram.   **10**
  b)   Explain the role of NoSQL in IoT Data Analytics Challenges.   **10**

Q4
  a)   Discuss Various IoT Application Transport Methods.   **10**
  b)   Design the Forest Fire Detection system using IoT sensors.   **10**

Q5
  a)   Explain the architecture of LoRaWAN with its major Characteristics.   **10**
  b)   What is the purpose of using a dashboard for data visualization?   **10**

Q6
  a)   Explain ecosystem for IoT enabled Smart Home with respect to sensors,   **10**
       actuators, framework, protocols, storage, data analysis, security etc.
  b)   Write short note on i) CoAP ii) Internet of Behaviour.   **10**