

Note

1. Question No. 1 is compulsory
2. Attempt any three questions from remaining five question
3. Figures to the right indicate full marks

Q.1 Solve any 4 out of 6 (20)

- 1) What are characteristics of IoT based system (5)
- 2) Explain various communication models in IoT. (5)
- 3) Compare HTTP with MQTT protocol (5)
- 4) Explain different types of OLTP (5)
- 5) Illustrate process specification and service model for IoT based. (5)
home automation
- 6) What are different REST constraints? (5)

Q.2 a) Explain various sensors and actuators in IoT based systems (10)

b) Explain the RFID IoT Network Architecture with its application and Security challenges. (10)

Q.3 a) What is data analytics and explain various methods of the same in IoT (10)

b) What are the services offered by cloud support your answer with examples. (10)

Q.4 a) Describe the architecture of COAP protocol, its features and message types associated with it. (10)

b) How is data organized in IoT based systems and what are different ways of organizing data? (10)

Q.5 a) Explain the MQTT protocol with an example highlighting the functions of broker. (10)

b) Describe Tomography and layered attacker model in IoT (10)

Q.6 Write Short notes on any 4 out of 5 (20)

- a. Features of Beaglebone and PcDUINO
 - b. Need of security in IoT based system
 - c. Business process and Business Intelligence
 - d. XMPP protocol
 - e. level 1 of designing in IoT
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