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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- February 2019

B.Tech CSE/IT/ECE VIII Semester

COURSE CODE: 15B1WCI832

MAX. MARKS: 15

COURSE NAME: INTERNET OF THINGS ARCHITECTURE AND DESIGN (OE)

COURSE CREDITS: 03

MAX. TIME: 1Hr

Note: All questions are compulsory. Each question carries equal marks. Carrying of mobile phone during examinations will be treated as case of unfair means.

1. (a) Explain the various application domains of IoT.

   (b) Explain the basic architecture of the IoT network in terms of:
      i.   Type of sensors/actuators.
      ii. Communication interface type.
      iii. Amount of data to be captured and transmitted.
      iv. A frequency of data transportation.

2. Draw and explain the following layered model of IoT:
   i.   Seven Layer reference model
   ii. Five Layer IoT Pyramid
   iii. Triangular Security triad

3. Draw and explain the following IoT Protocols:
   i.   MQTT: a protocol for collecting device data and communicating it to servers (D2S)
   ii. XMPP: a protocol best for connecting devices to people, a special case of the D2S pattern, since people are connected to the servers
   iii. DDS: a fast bus for integrating intelligent machines (D2D)
   iv. AMQP: a queuing system designed to connect servers to each other (S2S)