

Dr. Vivek Sehgal

Roll No:.....

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- February 2020

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) Define the following terms with brief explanation
  - i. Internet of Things
  - ii. Internet of every things
  - iii. Industrial Internet of things
  - iv. Industries 4.0

(b) How might Internet Address (IPv6) affect the development and implementation of the Internet of Things?
2. (a) Draw and explain the following layered model of IoT:
  - i. Three building layers of IoT
  - ii. Seven Layer reference model
  - iii. Five Layer IoT Pyramid

(b) What is the top 5 Machine to Machine (M2M) applications in the world?

(c) What are security concerns related to IoT? Explain with CIA Triad
3. (a) Draw and explain the following IoT Protocols with time response:
  - i. MQTT: (D2S)
  - ii. XMPP: a special case of the D2S pattern
  - iii. DDS: (D2D)
  - iv. AMQP: (S2S)

(b) What is the difference between a wireless sensor network (WSN) and the Internet of Things (IoT) network?