

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

T3 EXAMINATIONS-2022

B.Tech-VII Semester (CSE/IT: Minor in ECE)

COURSE CODE (CREDITS): 18B1WEC747(3)

MAX. MARKS: 35

COURSE NAME: Internet of Things

COURSE INSTRUCTOR: Dr. Salman Raju Talluri

MAX. TIME: 2 Hours

*Note: All questions are compulsory. Each question carries 5 marks.*

1. Describe the Service oriented architecture and Service Oriented device architecture. Explain the significance of Internet of things and Internet of devices. [CO-4]
2. Explain in detail about the reference architecture model industrie 4.0 (RAMI 4.0) in relation to ISO/OSI model. [CO-4]
3. What are the core functions of NIST cyber security framework? [CO-3]
4. Explain in detail about MQTT , UDP and CoAP. Make a comparison among these three protocols. [CO-3]
5. Explain in detail about the configuration of a typical sensor system and actuator system's major functional components. [CO-1]
6. What are the five major players in the IoT Space? Explain in detail about them in detail. [CO-2]
7. Define/Explain the following. [CO-1 to CO-4]
  - a. List there electrical characteristics of a temperature sensor.
  - b. Client/Server vs. Publisher/Subscriber model
  - c. Cloud Federation Approaches
  - d. Digital Twin
  - e. Information technology vs. Operational Technology