## 2124

## B. E. (Information Technology) Seventh Semester OEIT-701: Internet of Things

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt <u>five</u> questions in all, including Question No. I which is compulsory and selecting two questions from each Part.

x-x-x

1. Define the followings:  $(2 \times 5 = 10)$ a) Fog computing b) Working principle of RFID c) Push-Pull Communication Model d) VANET e) Types of actuators PART - A 2. a) What are the main differences between syntactic and semantic interoperability in IoT? (4) b) Describe the different components of M2M architecture. Compare and contrast M2M and loT. (6) 3. a) List basic python operators. What is elif in python programming? (4) b) How is Arduino different from a desktop computer? Develop a program to switch on the two LEDs (6) after an interval of time using Arduino. 4. What are standardize protocols for IoT. Compare the MQTT and CoAP protocols in detail. (10)PART - B 5. What is the function of centralized network controller in SDN? Describe how it can be used for various (10)levels of IoT. 6. What is cloud computing? Discuss its characteristics. Explain different service models of cloud with (10)examples. 7. Write short notes on any two of the following: a) Sensor Cloud b) Data Analytics using IoT (5+5)c) IoT in Healthcare