CS8081: INTERNET OF THINGS

Important Questions – University Exam

Part – B
UNIT 1

1. Draw the architecture of simplified IoT and Discuss the core IoT functional stacks.
2. Illustrate the IoTWF standardized reference model and explain the layers with neat diagram.
3. Illustrate the oneM2M IoT standardized architecture and explain the layers with neat diagram.
4. Explain the IoT enabling Technologies with suitable explanations.

UNIT 2

5. Analyze in detail LoRa WAN technology, illustrating the layers, MAC format and architecture.
6. Compare and contrast the application Layer protocols: CoAP and MQTT.
7. Illustrate 6LoWPAN architecture and various types of it with neat diagram.
8. Compare and contrast the IoT access technologies: IEEE 802.15.4 and IEEE 1901.2a

UNIT 3

9. Analyze the software and hardware features of Arduino board and explain the IDE programming.
10. Explain the concepts related to interfaces and Raspberry Pi with python programming.
11. Discuss the design methodology used to implement IoT Devices, explain the level wise design steps with neat diagram
12. Explain in brief the basic building block and layers in IoT system with diagram and point out some examples that define IoT devices

UNIT 4

13. Discuss the role of various components of NETCONF-YANG and steps for IoT device Management with NETCONF-YANG
14. Evaluate the necessity of Apache Kafka and Apache Spark with diagram.
15. Explain in detail the purpose of Amazon Web service for IoT
16. Explain in detail about the setup of cloud environment in an IoT.

UNIT 5

17. Elaborate the Cisco Grid Blocks reference architecture with a neat diagram.
18. Consider any use case example of smart applications of IoT, explain the architecture and technology need in building the application.
19. Illustrate the CPwE reference model with a neat diagram.
20. Examine the Features of IBM Watson IoT platform, and brief on the services provided in it.