

Syllabus

Unit 1: Introduction to Internet of Things: Origin of Terminology IoT, Applications of IoT, Characteristics, Implementation Issues, IoT Architecture, IoT Levels, Connectivity Layers, Interoperability in IoT, associated technologies with IoT (M2M, Telemedicine, Big Data, Cloud, Smart Grid, IoV, MANET, VANET, CPS, SDN, 3G/4G/5G), Challenges in IoT, IoT vs WoT, IoT vs M2M, IoT Network Configurations

Unit 4: Introduction to Arduino Programming : Operators in Arduino, Control Statement, Loops, Arrays, String, Math Library, Random Number, Interrupts, Integration and calibration of Sensors and Actuators with Arduino:
Implementation of IoT: Introduction to Arduino and NodeMCU (ESP8266) board, Programming
NodeMCU using Arduino, Connectivity of Sensors and Actuators with NodeMCU, Introduction to Python programming, Introduction to Raspberry PI

FAQ

Que: How many units are coming in CT-1

Ans: Unit 1 & Unit 4

Que: Where we can get the notes for writing answers

Ans: Refer Book that I have already provided

Que: How long should be the answer written

Ans: For 8 marks you should fill 3 pages, and for 4 marks 1 and a half page. Include diagram where it's necessarily.

Que: What is meant by 3 pages for answer writing

Ans:



NOTE:

- **These questions are for reference purpose**
- **The questions which are highlighted must be your top priority for preparing**
- **Don't be dependent on question bank, prepare for exam apart from given question provided in question bank, always refer syllabus**

UNIT 1

1 Describe IOT architectural view in details?

2. What are the differences between machines in M2M and things in IOT?

3. Why do IOT system have to be self-adapting and self-configuring?

4. Write application of IOT?

5. Discuss are of development and standardizations in IOT?

6. What do you understand by IOT? Explain any five areas of IOT.

7. Explain characteristics of IOT

8. What component required to design IOT device and which device we called IoT devices? Explain with example

9. Describe IoT reference to architecture and information model

10. Draw and explain IoT level 3 and level 4 systems. Give example for them

11. What is IoT? Describe in detail about IoT ecosystem

12. Discuss 5'V of Big data

13 What are advantage and disadvantage of IoT

14. What is Web of Things, Difference between Web of Things(WoT) and IOT

13. Short note on

M2M

IOV

Big Data

WoT

UNIT 4

1. Mention the versions of linux OS supported by Raspberry pi
2. Explain different operators used in Arduino
3. Explain features of ESP8266 (Node mcu) with suitable pin diagram
4. Explain Raspberry pi in detail with components parts and architecture diagram
5. Explain characteristics of python programming language
6. Write down an Arduino program to blink inbuilt LED of Arduino board. Use this program to explain the basic structure and functions used in Arduino programming
7. What do you mean by interoperability in IOT? What can be the problem due to lack in interoperability
8. Explain Arduino architecture with pin diagram
9. Explain in brief Arduino with IOT application
10. Write short notes on

Interrupts

Calibration of sensor in embedded systems (arduino)