

B.TECH
(SEM V) THEORY EXAMINATION 2022-23
INTRODUCTION TO INTERNET OF THINGS

Time: 3 Hours**Total Marks: 100****Note:** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A**

1. **Attempt all questions in brief.** **2 x 10 = 20**
- Define sources of IoT.
 - Define M2M.
 - What is ARM Cortex used for?
 - Define Wi-Fi.
 - What is node discovery?
 - What are wireless medium access issues in IoT?
 - How to add two numbers in Arduino?
 - What is the use of Arduino IDE in Arduino?
 - How IoT is used in automotive applications?
 - What is smart card used for?

SECTION B

2. **Attempt any three of the following:** **10 x 3 = 30**
- Write down the Characteristics of IOT.
 - Explain the Identification Technology used for IOT. What is Intel Galileo in IoT?
 - Explain routing protocols in IoT network.
 - Write the steps for implementation of IoT using Arduino.
 - Explain the various development challenges in IoT.

SECTION C

3. **Attempt any one part of the following:** **10 x 1 = 10**
- Discuss the various IOT applications.
 - Explain IoT/M2M system layers and design standardization.
4. **Attempt any one part of the following:** **10 x 1 = 10**
- Explain wireless sensor network architecture. What is WSN Nodes?
 - What are IoT hardware platforms? Explain Arduino and Raspberry Pi in IoT.
5. **Attempt any one part of the following:** **10 x 1 = 10**
- Why data aggregation and dissemination is important? Explain it with example.
 - Explain MAC Protocols for IoT. What is sensor deployment?
6. **Attempt any one part of the following:** **10 x 1 = 10**
- Explain the various parts of the Arduino Platform Board.
 - What is Arduino IDE platform? Write down the steps to import libraries into Arduino IDE.
7. **Attempt any one part of the following:** **10 x 1 = 10**
- Discuss the different security challenges in IoT.
 - Explain the application of IoT in smart metering, E-health and city automation.