# SEMESTER EXAMINATION-2021

## CLASS – MCA III SEMESTER SUBJECT: COMPUTER SCIENCE
## PAPER CODE: MCA-E307 PAPER TITLE: Internet of Things

**Time: 3 hours** **Max. Marks: 70**
**Min. Pass: 40%**

**Note:** Question Paper is divided into two sections: **A and B.** Attempt both the sections as per given instructions.

### SECTION-A (SHORT ANSWER TYPE QUESTIONS)

**Instructions**: Answer any five questions in about 150 words each. Each question carries six marks. (5 X 6 = 30 Marks)

Question-1: What do you mean by IoT and also describe most common IoT applications?

Question-2: What are the fundamental hardware components of IoT?

Question-3: Differentiate the M2M and IoT technology.

Question-4: Draw and explain layered Architecture of IOT.

Question-5: How data management takes place in IoT and also **m**ention suitable databases for IoT.

Question-6: List mostly used sensors types in IoT.

Question-7: Explain the I/O interface in IoT?

Question-8: Explain Four Aspects in your Business to Master IoT.

Question-9: Explain IOT For Transportation system in India.

Question-10: Explain IOT Reference architecture with a neat diagram

## SECTION-B (LONG ANSWER TYPE QUESTIONS)

**Instructions:** Answer any FOUR questions in detail. Each question carries 10 marks. (4 X 10 = 40 Marks)

Question-11: Explain the functional layers and capabilities of an IoT solution with a neat diagram.

Question-12: Explain the Architectural view of IoT with its suitable diagram. What is the role of cloud computing in IoT?

Question-13: Explain Basics of networking in IoT. What is the role of communication protocols of MQTT and ZigBee.

Question-14: What are the major computing aspects solve by “Arduino” and “Raspberry Pi” in IoT.

Question-15: Explain the function of Bluetooth and CoAP protocols.

Question-16: What are the Major security aspects in IoT?

Question-17: What impacts will the Internet of Things (IoT) have on the health care system?

Question-18: describe the followings-

A. Home automation with IoT
B. Everything as a Service (XaaS)