

**A-851**

Total Pages : 3

Roll No. ....

**MCA-E11/MCS-E11**

**(MCA)**

**(Introduction to Internet of Things)**

4th Semester Examination, 2024 (June)

Time : 2:00 Hrs.

Max. Marks : 70

**Note :-** This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. *Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.*

**Section-A**

**(Long Answer Type Questions) 2×19=38**

**Note :-** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

1. Describe the IoT enabling Technologies and M2M Communication with suitable explanations.
2. What is the difference between data in motion and data in rest, mentioning examples to each one ?
3. Which sensors are used in Industrial IoT ? Which IoT level is used for Industry system ?
4. Explain the IoT impact for the following :
  - (i) Connected Roadways
  - (ii) Connected factory
  - (iii) Smart cities
5. Briefly discuss about Constrained nodes and Networks. How it is implemented in Data Handling.

### **Section–B**

**(Short Answer Type Questions)      4×8=32**

**Note :-** Section ‘B’ contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. Explain different types of Python API.
2. What are the applications of IoT ?
3. What is Cloud Computing ?

4. Summarize the components of IoT system.
5. Explain IoT challenges with example.
6. What are the key application functionalities of IoT system ?
7. Explain different types of sensors with example.
8. Compare one M2M and IoT world forum standardized Architectures.

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