

**K-1012**

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**MCS-E11**

**MCA IVth Semester  
Examination Dec., 2023**

**INTRODUCTION TO INTERNET  
OF THINGS**

**Time : 2 Hours]**

**[Max. Marks : 70**

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*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 there in. 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.*

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( 1 )

P.T.O.

1. What are enchanted objects ? Explain with examples how the technology has always been associated with magic.
2. What are the benefits of using IPV6 in IOT ? Explain the use of TCP and UDP ports. Give examples.
3. Which sensors are used in weather monitoring system ? Which IOT level is used for weather monitoring system ?
4. Illustrate Python programming. Explain Raspberry Pi with Implementation of IoT with Raspberry Pi.
5. What is Data Analytics ? 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. What is fog computing and its role in the development of smart applications ?
2. What are the applications of SDN ?
3. What lot ? What are the key application functionalities of IoT system ?

4. How IoT is used in smart cities ?
5. Explain Machine-to-Machine Communication.
6. Define Integration of Sensors and Actuators with Arduino.
7. What is the use of Sensor-Cloud ?
8. Why fog computing is called fogging ?

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