

# S-788

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## MCS-E11

**Introduction to Internet of Things**

**Master of Computer Application (MCA)**

4<sup>th</sup> Semester, Examination 2022(Dec.)

Time: 2 Hours

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.

### Section – A

(Long Answer – type questions)

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.

[2 x 19 = 38]

P.T.O.

- Q.1. What IoT? What are the key application functionalities of IoT system?
- Q.2. Explain various trends in Information and communication technologies and its impact on IoT.
- Q.3. Explain M2M and WSN architecture in detail.
- Q.4. What is Industrial IoT? Discuss about Smart building Applications in IoT with example.
- Q.5. What is cloud computing? Explain how cloud of things acts as enabler for new value added services and applications with a neat diagram.

## **Section – B**

### **(Short-answer-type questions)**

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.

[4 x 8 = 32]

- Q.1. Explain sensor network in detail.
- Q.2. Explain with example, what are the limitations of IoT?
- Q.3. List out different hardware component and ports available on Rasbbery pi.
- Q.4. Explain with example, what are the uses of Arduino Programming?
- Q.5. What are the applications of SDN?
- Q.6. Explain different types of Python API.
- Q.7. Explain fog computing and its applications with example.
- Q.8. Explain application of IoT for smart cities.

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