FACULTY OF INFORMATICS

M.C.A. (2 Years Course) III- Semester (CBCS) (Backlog) Examination, October/ November 2023

Subject: Internet of Things (E-I)

Time: 3 Hours   Max. Marks: 70

Note: I. Answer one question from each unit. All questions carry equal marks.
     II. Missing data, if any, may be suitably assumed.

Unit-I

1. a) Explain various trend in Information and communication technologies and its impact on IoT.
   b) Discuss about various applications of IoT.

(OR)

2. a) Discuss research challenges of IoT.
   b) Discuss about Properties of Autonomic IoT Systems.

Unit-II

3. a) Explain about Static and Dynamic IP address assignment.
   b) Write a short notes on MAC address.

(OR)

4. a) Explain internet protocol suite with neat diagram.
   b) Differentiate between closed source verses open source.

Unit-III

5. a) Define Embedded computing. Discuss about The Arduino.
   b) Write short notes on 3D-printing.

(OR)

6. a) Explain techniques used for writing embedded C code.
   b) Write about working functionalities of Sensors and actuators.

Unit-IV

7. a) What is API? What are communication APIs?
   b) Discuss why communication APIs needs in business.

(OR)

8. Explain Apache Hadoop Ecosystem with neat diagram.

Unit-V

9. Discuss about Business model canvas.

(OR)

10. Write about Different Ethical Issues in IoT and discuss how to control those Issues.

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