FACULTY OF INFORMATICS
M.C.A. (2 Years Course) III- Semester (CBCS) (Main) Examination, April/May 2023

Subject: Internet of Things

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) Discuss about any one application of IOT.
   b) Discuss about IOT Communication Technology in detail.
                                        (OR)
2. a) Discuss about security, privacy and Trust challenges in IOT
   b) Explain about Energy Harvesting in device level energy Issue.

Unit-II

3. a) Explain internet protocol suite with neat diagram.
   b) List the various protocol of application layer.
                                        (OR)
4. a) Differentiate between TCP and UDP Ports
   b) Explain about Dynamic IP address assignment

Unit-III

5. a) Explain types of 3D printing in detail.
   b) Write simple embedded system program for LED Blinking.
                                        (OR)
6. a) Discuss about The Raspberry Pi.
   b) Explain Temperature sensor for Arduino Board with technical specifications and component requirements.

Unit-IV

7. What is Cloud computing? Discuss about various cloud computing services with key feature.
                                        (OR)
8. a) What is API? What are communication APIs?
   b) Discuss Hadoop Distributed File System with neat diagram.

Unit-V

9. Discuss in detail about different Business models for IoT.
                                        (OR)
10. Write about Different Ethical Issues in IoT and discuss how to control those Issues.
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