Total No. of Questions : 09

MCA   (Sem.–4)

IOT AND BLOCKCHAIN TECHNOLOGY
Subject Code : PGCA-1967
M.Code : 91862
Date of Examination : 05-01-2023

Time : 3 Hrs.   Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION - B &C have FOUR questions each.**
3. **Attempt any FIVE questions from SECTION B& C carrying TEN marks each.**
4. **Select atleast TWO questions from SECTION - B &C.**

SECTION-A

1. **Write briefly :**

   a) UDP and TCP

   b) ZigBee

   c) IoT interfaces

   d) Blockchain transactions

   e) Crypto Currency

   f) Public Blockchain

   g) Identity on Blockchain

   h) Block in a Blockchain

   i) Embedded Systems

   j) Block Mining.

SECTION-B

2.   Discuss in detail the various protocols and communication models involved in IoT.

3.   Explain these concepts in detail :

     (a) IoT levels and deployment templates

     (b) Big Data Analytics

4.   Define and describe various APIs for communication in IoT.

5.   Write a detailed note on the IoT applications in the areas of health, agriculture, environment and energy.

SECTION-C

6.   Define Blockchain? Why it came into existence? Discuss the permissioned model of block chain in detail and explain the idea of cryptocurrency to blockchain.

7.   What is Bitcoin? Explain process of creation of coins, payments and double spending, and bitcoin scripts.

8.   Write a detailed note on the enterprise applications of blockchain such as Blockchain enabled trade, We Trade- Trade Finance network and Supply chain financing.

9.   Explain the issues and challenges associated with bitcoin. Also discuss the concepts of block propagation and block relay.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.