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9. (a) How Blockchain is Revolutionizing the Traditional Business Network? Explain with example. 8
- (b) How are cryptocurrency transactions recorded? 5
- (c) What are the different types of blockchain? 3

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M.C.A. 2 Year Course 4th Semester (w.e.f. 2020-21)
(Re-appear) Examination, December 2022
CYBER SECURITY AND BLOCKCHAIN
TECHNOLOGY (i)
Paper-21MCA24DA1

Time allowed : 3 hours]

[Maximum marks : 80

Note : Questions Number 1 will consist of total 8 parts (short -answer type questions) covering the entire syllabus and will carry 16 marks. In addition to the compulsory question there will be four units i.e. Unit-I to Unit-IV. Question number 1 will be compulsory. In addition question no.1, student will have to attempt four more questions selecting one question from each Unit.

1. (a) What is cyber security and how it is different from information security? 8*2=16
- (b) What is CIA?
- (c) Differentiate between IDS and IPS.
- (d) Explain smart contracts.
- (e) Discuss the concept of steganography.
- (f) What is a wireless network? Describe the important components of wireless network.

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- (g) Define Digital forensics.
- (h) What is port scanning?

Unit-I

- 2. (a) What are the categories of computer security? 4
- (b) Differentiate between vulnerabilities, threat and attack with the use of suitable examples for each. 6
- (c) List the features of NETCAT and SOCCAT. 6
- 3 (a) What do you mean by Application Security? Explain the steps involved in securing databases. 8
- (b) Explain the concept of Network Reconnaissance and describe any tool that supports it. 8

Unit-II

- 4. (a) List and explain any two password management practices. 6
- (b) What is VPN? Explain types of VPN. 6
- (c) Differentiate stateful and stateless firewalls. 4

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- 5. Explain about the following HTTP utility tools 16
 - (a) OpenSSL
 - (b) Stunnel
 - (c) Curl

Unit-III

- 6. (a) Explain the architecture of Firewall. What are the various characteristics of Firewall? 8
- (b) What is password cracking? List four guidelines that need to be followed to avoid password cracking. 8
- 7. (a) What is Malware? Write the steps to remove the malware from your PC. 8
- (b) Write the steps to prevent the denial of Service attacks. 8

Unit-IV

- 8. (a) What are the Merkle trees? What is its importance in blockchain? 6
- (b) What are the components of a block chain system? 4
- (c) Explain Ethereum. 6

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