

3M1196

Roll No. _____

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M.B.A. III - Sem. (Main / Back) Exam., - 2024

BUSINESS ANALYTICS

M-363 Block Chain Technologies

Time: 3 Hours

Maximum Marks: 70

Instructions to Candidates:

- (i) *The question paper is divided in three parts.*
- (ii) *Part A contains 10 questions which are compulsory. Part B contains eight questions out of which five are to be attempted. Part C contains one question which is compulsory.*

1. NIL _____

2. NIL _____

PART – A

[10×2=20]

Word limit 25 only

All questions are compulsory

- Q.1 What is the need of decentralized ledger system?
- Q.2 What do you understand by digital signature?
- Q.3 What is Hyperledger? Explain.
- Q.4 What are Cyber Currencies?
- Q.5 What is GHOST protocol for Ethereum?
- Q.6 What are the roots of Bitcoin?
- Q.7 Differentiate between permissionless and permissioned Blockchain.
- Q.8 What do you understand by Proof of Work and Proof of Stake?
- Q.9 What are the main barriers to Blockchain adoption?
- Q.10 What is cryptographic token? Explain.

PART – B

[5×6=30]

Attempt any five questions

- Q.1 Describe Bitcoin protocols used in crypto-currency.
- Q.2 Explain the integrity and privacy issues of a decentralized system.
- Q.3 Describe the legal aspects of Crypto Currency Exchange.
- Q.4 What are the common uses of Blockchain within financial services?
- Q.5 Write short note on -
- (a) Internet of Things
 - (b) Domain Name Service
- Q.6 What are the risks and limitation of Blockchain? Explain in detail.
- Q.7 Describe the concept of block and its components.
- Q.8 What are Blockchain transactions? How a transaction is performed in Blockchain?

PART – C

[20]

(Compulsory)

- Q.1 Two Insurance Companies, Atlas Insurance in Malta and Axa in France, tested smart contracts in 2017. They had prototypes that compensated airline customers if their flights were delayed.
- John is about to fly from NYC to Los Angeles. He sends \$5 worth of crypto-currency to the Axa Insurance smart contract and provides his flight number. Axa sends \$95 to the smart contract. So, there is \$100 in the smart contract. If John's flight is on time, Axa sent \$100 from the smart contract. But if the plane is late, \$100 is sent to John from the smart contract. Everything is automatic. This saves lots of time and money. It also means that John does not have to trust that Axa will pay him the agreed amount if his flight is late, he knows that if it is late, the smart contract will instantly send him his compensation (\$100).
- (a) What is Smart Contract and how does it work? Explain.
 - (b) What are different application areas where Smart Contract can be used?