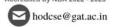


ಗ್ಲೋಬಲ್ ಅಕಾಡೆಮಿ ಆಫ್ ಟೆಕ್ನಾಲಜಿ, ಬೆಂಗಳೂರು GLOBAL ACADEMY OF TECHNOLOGY An Autonomous Institute Affiliated to VTU-Belagavi, Approved by AICTE and Accredited by NAAC, "A" grade Aditya Layout, Ideal Homes Township, RR Nagar, Bengaluru, Karnataka 560098



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SUB:-BLOCKCHAIN AND CRYPTO CURRENCY (20CSE742)

QUESTION BANK FOR IA2

Module 2 – Chapter 2: Cryptography

SL. No.	QUESTIONS	Cos
1	Define Cryptography. Explain the four Primary Cryptographic primitives needed to achieve security in any network.	2
2	Define Symmetric Cryptography. Explain the two methods to generate the cipher text for encryption.	2
3	Briefly explain the following methods for encryption/decryption with suitable examples: a. Caesar Cipherb. Vegener Cipher	2
4	Using Vegener Cipher, i. Encrypt and Decrypt the Message: JAVATPOINT given the Key: BEST ii. Encrypt and Decrypt the Message: HYDERABAD given the Key: SPARROW	2
5	Write a short note on: a. Examples of Block Ciphers –DES, AES b. Examples of Stream Ciphers-RC4, A5/1	2
6	Explain Integer Factorization Problem(RSA) with an example.	2
7	Explain Discrete Log Problem(Diffie-Hellman) with an example.	2
8	Numericas on RSA and Diffie-Hellman algorithms.	
9	What is Elliptic Curve Digital Signature Algorithm? How does it work?	2
10	Differentiate between Symmetric and Asymmetric Cryptography.	2

Module 3 - Consensus Mechanism, Ethereum

SL. No.	QUESTIONS	Cos
1.	What do you mean by Consensus Algorithm? How does it work?	3
2.	Explain in detail various Consensus mechanisms used in Blockchain.	3
3.	Explain the various Byzantine agreement based Consensus methods in detail.	3
4.	Write and explain the steps involved in Lamport-Shostak-Pease Algorithm.	3
5.	Explain the various components of Blockchain.	3

6.	What is Ethereum? What is the need of it?	3
7.	Write the significance of EVM.	3
8.	Explain the working of Ethereum, with detailed steps.	3
9.	Write a short note on various Ethereum Clients.	3
10.	Explain in detail Ethereum Key Pairs.	3
11.	Give the steps for generating a public key in Blockchain.	3
12.	Write a note on Etherium addresses. Also mention the three variations of an account identifier.	3
13.	What do you mean by Etherium Wallets? Explain the two primary wallet types.	3
14.	How do transactions take place in the Ethereum network. Explain with an example.	3
15.	Explain the concepts gas, gasLimit in Ethereum.	3
16.	Which are the primary languages used to write Ethereum Smart Contacts.	3
17.	Explain in brief the prominent Ethereum development tools.	3