SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK (DESCRIPTIVE)

Subject with Code: CryptoCurrency&Blockchain Technology(16IT620)   **Course & Branch**: B.Tech - CSIT

Year &Sem: IV-B.Tech& II-Sem   **Regulation:** R16

UNIT –I
BASICS-DISTRIBUTED DATABASE & CRYPTOGRAPHY

1	(a)What is Distributed Database?Explain it types.	**[6M]**
	(b) Write short notes on Turing Complete.	**[6M]**
2	Difference between Centralized Database and Distributed Database.	**[12M]**
3	(a)Explain about Byzantine General Problem.	**[6M]**
	(b)Explain about Byzantine Fault Tolerance.	**[6M]**
4	Explain Hadoop Distributed File System.	**[12M]**
5	(a)What is Distributed Hash Table?	**[6M]**
	(b)Write about ASIC resistance.	**[6M]**
6	What is Hash Function in cryptography?Write Features and properties of Hash functions.	**[12M]**
7	Write about ECDSA digital signature in detail.	**[12M]**
8	Explain Applications of Hash Functions.	**[12M]**
9	Explain Popular Hash Functions in detail.	**[12M]**
10	Explain about Zero Knowledge Proof.	**[12M]**

UNIT –II
BLOCKCHAIN

1	What is Blockchain?Explain.	[12M]
2	Explain about need of Blockchain.	[12M]
3	(a)What is the difference between Bitcoin blockchain and Ethereum blockchain?	[6M]
	(b)List the key features of blockchain?	[6M]
4	What are the different types of Blockchains?	[12M]
5	What is the difference between blockchain and database?	[12M]
6	(a)What do you mean by blocks in the blockchain technology?	[6M]
	(b)What type of records can be kept in the Blockchain? Is there any restriction on the same?	[6M]
7	What are the benefits of blockchain?	[12M]
8	What are the Merkle trees? What is its importance in blockchain?	[12M]
9	What are the limitations of blockchain?	[12M]
10	(a)How does Blockchain differ from relational databases?	[6M]
	(b)What is the difference between public and private blockchain?	[6M]

UNIT –III
DISTRIBUTED CONSENSUS

1	What is the difference between Proof-of-work and Proof-of-stake?	[12M]
2	(a)What is Consensus algorithm?	[6M]
	(b)What are the types of consensus algorithms?	[6M]
3	Explain Sybil attack with examples.	[12M]
4	(a)How the Bitcoin network prevents sybil attack?	[6M]
	(b) What are the ways to prevent sybil attack?	[6M]
5	(a)Explain the model used in the Sybil Attack.	[6M]
	(b) What are the Types of sybil attack?	[6M]
6	Explain Nakomoto consensus algorithm.	[12M]
7	Explain Proof-of-Work in detail	[12M]
8	Explain Proof-of-Burn in detail	[12M]
9	Explain Energy Utilization in detail.	[12M]
10	Explain Proof-of-Stake in detail	[12M]

UNIT –IV
CRYPTOCURRENCY

1	What is Cryptocurrency?Explain	[12M]
2	Explain the construction of Ethereum.	[12M]
3	(a)What are the attacks in cryptocurrency?	[6M]
	(b)Write a short notes on sidechain and namecoin.	[6M]
4	Write in detail about GHOST.	[6M]
5	Explain Bitcoins protocols in detail.	[6M]
6	(a)What is Bitcoin?	[5M]
	(b)How can you convert Bitcoin into Fiat currencies?	[7M]
7	What is the difference between Bitcoin and Blockchain?	[12M]
8	(a)What is a Bitcoin wallet?	[5M]
	(b)How can you choose a Bitcoin wallet?	[7M]
9	What is mean by DAO?Explain	[12M]
10	What are the advantages and disadvantages of bitcoin?	[12M]

UNIT –V
CRYPTOCURRENCY REGULATION & BLOCKCHAIN APPLICATIONS

1	Write in detail about Cryptocurrency Regulation	[12M]
2	Explain stake holders in cryptocurrency?	[12M]
3	Explain about roots of Bitcoin.	[12M]
4	Explain Black Market and Global Economy in detail.	[12M]
5	What are the legal aspects in cryptocurrency?Explain.	[12M]
6	Explain in detail about any one Blockchain application.	[12M]
7	(a)Explain future of Blockchain in detail.	[6M]
	(b) Write about digital currency Exchange.	[6M]
8	Explain in detail about DNS.	[12M]
9	Explain Blockchain applications.	[12M]
10	Write about Cryptocurrency Exchange.	[12M]

Prepared by:
BHUKYA RAJA KUMAR, Assistant Professor. CSIT Dept,SIETK