

Subject Code: XXXXX

Roll No:

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BTECH
(SEM-7) BLOCKCHAIN ARCHITECTURE DESIGN 2021-22

TIME:3 HOUR

Total Marks: 70

Instruction: Attempt the questions as per the given instructions. Assume missing data suitably.

SECTION - A

Attempt **All Parts** in Brief

2*7 = 14

Q1	Questions	Marks
(a)	What is the principle on which blockchain technology is based on ?	2
(b)	Why is blockchain a trusted approach ?	2
(c)	Name the two types of records that are present in the blockchain database ?	2
(d)	Differentiate between the term hyper ledger and blockchain ?	2
(e)	What are encryption in blockchaining and its role in blockchain ?	2
(f)	What are the different types of tokens used in blockchains ?	2
(g)	What are the application block identifiers in blockchaining ?	2

SECTION - B

Attempt **Any Three** of the following

3*7 = 21

Q2	Questions	Marks
(a)	What type of records can be kept in a blockchain ? Is there any restriction on same ?	10

(b)	Explain the major elements of the blockchain ecosystem in detail ?	10
(c)	Mention the difference state difference between proof-of work and proof-of-stake in blockchaining.	10
(d)	What are the key principles in blockchain that are helpful in eliminating the security threats that needs to be followed?	10
(e)	What is the application of merkle trees ?Write use of merkle trees in blockchains ?	10

SECTION - C

Attempt Any One of the following

7*5 = 35

Q3	Questions	Marks
(a)	What are function modifiers in solidity? How is blockchain distributed ledger different from a traditional ledger ?	7
(b)	What is the concept of double spending ? What is a DAPPS in blockchain ?	7
Q4	Questions	Marks
(a)	Write and explain the blockchain architecture in depth. What are the primary benefits of immutability in blockchaining ?	7
(b)	Explain the steps that are in the blockchain project implementation. Mention the significance of blind signature and how it is useful ?	7
Q5	Questions	Marks
(a)	What are the key principles in blockchain that are helpful in eliminating the security threats that needs to be followed.	7
(b)	Mention and list the parts of EVM memory in blockchaining.	7
Q6	Questions	Marks
(a)	Name organizations that can use blockchain technology. What is the difference between blockchain and database ?	7
(b)	What is the concept of executive accounting ? Does blockchain support the same ?	7
Q7	Questions	Marks
(a)	Which cryptographic algorithm is used in blockchain ? Explain in detail.	7
(b)	Mention various limitations of blockchaining in detail with proper representation.	7

