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Distributed Data Analytics

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Q1: What is the blockchain?

Blockchain is a decentralized digital ledger that records transactions across many computers in such a way that the registered transactions cannot be altered retroactively, ensuring transparency and security.

Q2: What are the benefits of using blockchain?

Decentralization: Eliminates the need for a central authority.

Transparency: Every transaction is visible to all participants.

Security: Cryptographic techniques ensure data integrity.

Immutability: Once recorded, transactions cannot be altered.

Q3: List some of the features of blockchain.?

Decentralization , Transparency , Security, Immutability

note: do not type out of the box your answer or on the lines only between the lines
and in the box otherwise your answer will not be recognized

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Q4: What are the content of each block?

Data: Transaction details.

Hash: A unique identifier for the block.

Previous Block Hash: Link to the previous block.

Timestamp: Time when the block was created.

Nonce: A random number used for mining.

Q5: RMI stands for?

Remote Method Invocation.

Q6: The “all-or-none” property known as?

Atomicity is one of the key properties of database transactions
in the context of ACID

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Q7: What is a distributed data base?

A distributed database is a database in which data is stored across different physical locations, connected by a network, and managed collectively.

Q8: What RFC stands for?

Request for Comments.

Q9: Mention some Scaling techniques?

Sharding: Splitting a database into smaller, manageable pieces.

Vertical Scaling: Increasing the power of existing hardware.

Horizontal Scaling: Adding more machines to handle the load.

Off-Chain Transactions: Processing transactions outside the main blockchain to reduce load.

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