

Time: 2 Hours

Total Marks: 50

<b>Note:</b>			<b>Mar ks</b>	<b>Course Outcome</b>	<b>Bloom's Level</b>
				<b>CO</b>	<b>BL</b>
<b>Q1</b>	<b>Answer the following</b>				
	<b>a.</b>	Describe Cryptographic Hash Functions and its properties.	<b>[05]</b>	<b>CO1</b>	<b>BL4</b>
	<b>b.</b>	What is Sybil Attack?	<b>[05]</b>	<b>CO2</b>	<b>BL2</b>
	<b>c.</b>	Describe NFTs (Non-Fungible Tokens)	<b>[05]</b>	<b>CO2</b>	<b>BL3</b>
	<b>d.</b>	What is Byzantine Fault Tolerance?	<b>[05]</b>	<b>CO3</b>	<b>BL2</b>
<b>Q2</b>	<b>a.</b>	Define Blockchain. Differentiate Centralized and Decentralized systems.	<b>[08]</b>	<b>CO1</b>	<b>BL4</b>
	<b>b.</b>	Highlight the importance of hash functions and digital signatures in Blockchain?	<b>[07]</b>	<b>CO1</b>	<b>BL4</b>
<b>Q3</b>	<b>a.</b>	Explain Ethereum Virtual Machine in detail.	<b>[08]</b>	<b>CO2</b>	<b>BL2</b>
	<b>b.</b>	Describe Proof of Stake and Proof of Burn in detail.	<b>[08]</b>	<b>CO2</b>	<b>BL2</b>
<b>Q4</b>	<b>a.</b>	What is Hyperledger Fabric? Explain transaction flow in Hyperledger Fabric.	<b>[08]</b>	<b>CO3</b>	<b>BL2</b>
	<b>b.</b>	Write a short note on smart contracts and Solidity.	<b>[07]</b>	<b>CO2</b>	<b>BL3</b>
<b>Q5</b>	<b>a.</b>	What is the role of Blockchain in Supply Chain Management?	<b>[08]</b>	<b>CO4</b>	<b>BL5</b>
	<b>b.</b>	Explain Gossip Protocol. How is it used in Blockchain?	<b>[07]</b>	<b>CO3</b>	<b>BL5</b>

\*\*\*\*\*