Centurion University
Shaping Lives... Empowering Communities...

School: ..... Campus: .....

Academic Year: ..... Subject Name: ..... Subject Code: .....

Semester: ..... Program: ..... Branch: ..... Specialization: .....

Date: .....

Applied and Action Learning

(Learning by Doing and Discovery)

Name of the Experiement :

* Coding Phase: Pseudo Code / Flow Chart / Algorithm

Tokenomics combines the words “Token” and “Economics”.
It describes the complete economic system that governs a cryptocurrency — including its design, distribution, supply, and usage within the blockchain network.
Just as traditional economies are managed through monetary policies (like money supply, inflation, and interest rates), blockchain projects use tokenomics to manage the flow and value of their tokens.
The goal of tokenomics is to create a balanced system that rewards users, ensures fair participation, and maintains the long-term stability of the crypto project.

- Token Creation: How new tokens are generated within the system.
- Token Distribution: How tokens are shared among users, investors, or developers.
- Token Utility: The purpose and use of tokens (e.g., governance, payments, rewards).
- Token Supply: The total number of tokens that exist or can ever exist.
- Value Mechanism: What factors give tokens their worth (such as scarcity or demand).
  - Choose a Cryptocurrency Example:
    Select a well-known crypto project, such as Ethereum, for analysis.
  - Examine Key Features:
  - Total Supply: No fixed limit (after EIP-1559, Ethereum has become slightly deflationary).
  - Utility: Used for paying gas fees, staking in the network, and participating in governance.
  - Inflation Rate: Around 0.3%, depending on the amount of ETH burned.
  - Understand Token Distribution:
    Tokens are distributed through validator rewards, developer incentives, and user transactions within the ecosystem.
  - Prepare a Comparison Table:
    Create a table comparing Ethereum’s parameters with another cryptocurrency such as Bitcoin, highlighting differences in supply, utility, and economic model.

*As applicable according to the experiment.
Two sheets per experiment (10-20) to be used.

* Softwares used

- Laptop – Used for running simulations, coding, and accessing blockchain tools.
- MetaMask – A digital wallet for managing and interacting with Ethereum-based tokens.
- VS Code – A code editor for writing and deploying smart contracts.
- Etherscan – A blockchain explorer used to track Ethereum transactions and token details (ERC-20, ERC-721).
- CoinMarketCap – A platform for checking cryptocurrency prices, market data, and token information.

**As applicable according to the experiment.*
Two sheets per experiment (10-20) to be used.

* Observations

Cryptocurrency	Maximum Supply	Growth Rate	Main Use / Purpose	Consensus Mechanism	Key Characteristic
Bitcoin (BTC)	21 million (fixed)	0% after full mining (approx. year 2140)	Digital store of value	Proof of Work (PoW)	Scarce and capped supply
Ethereum (ETH)	No fixed limit	Around 0.3% (varies with burn rate)	Network fees, staking, smart contracts	Proof of Stake (PoS)	Deflationary effect post EIP-1559

ASSESMENT

Rubrics	Full Mark	Marks Obtained	Remarks
Concept	10		
Planning and Execution/ Practical Simulation/ Programming	10		
Result and Interpretation	10		
Record of Applied and Action Learning	10		
Viva	10		
Total	**50**		

Signature of the Student:

Name :

Regn. No. :

Signature of the Faculty:

**As applicable according to the experiment.*
Two sheets per experiment (10-20) to be used.