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 : Tokenomics 101 – Analyzing Crypto Economics

Objective/Aim:

To understand the fundamentals of **tokenomics** — the economic design of blockchain tokens — by studying their **supply models, utility, distribution mechanisms**, and **impact on a blockchain ecosystem**.

Apparatus/Software Used:

- nternet access for researching crypto projects (CoinMarketCap, CoinGecko)
- Spreadsheet / Calculator for token supply analysis
- Whiteboard / Presentation slides for design visualization
- Solidity IDE (Remix / Hardhat) to simulate token supply logic

Theory/Concept:

Tokenomics is the study of the **economic system** behind a cryptocurrency or blockchain project.
It defines how a token is **created, distributed, used, and maintained** within its ecosystem.

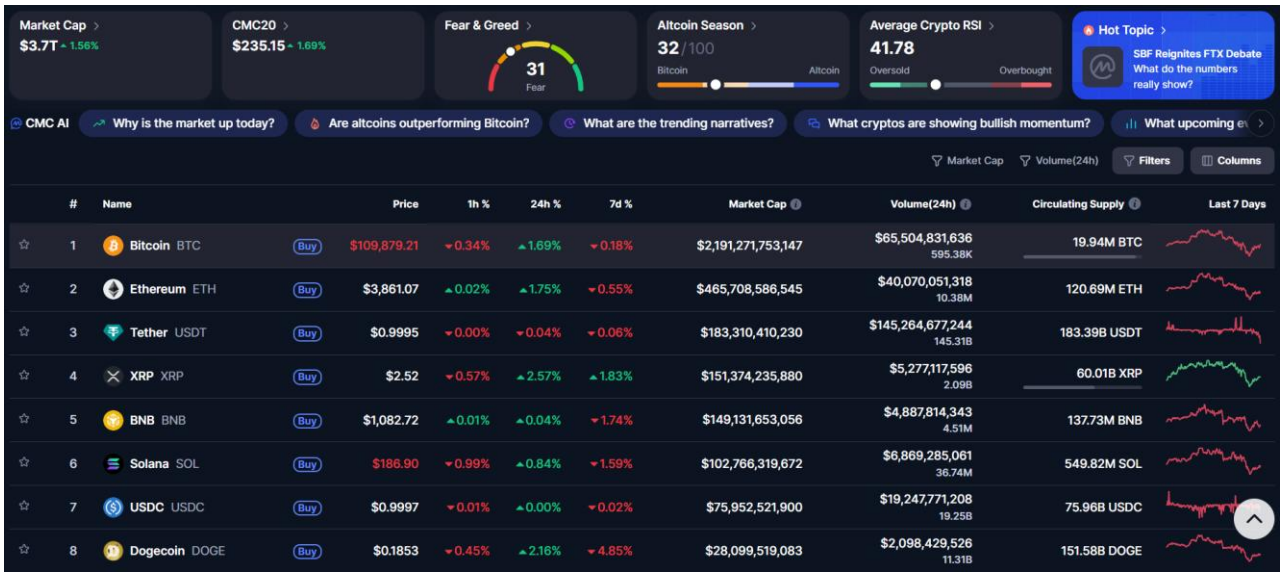
Key components of tokenomics include:

1. **Token Type:**
   - *Utility Token:* Used for accessing services (e.g., UNI, LINK).
   - *Governance Token:* Allows holders to vote on decisions (e.g., AAVE, COMP).
   - *Security Token:* Represents ownership or investment contracts.
   - *Stablecoin:* Pegged to real-world assets (e.g., USDT, DAI).
2. **Token Supply:**
   - **Fixed Supply:** Limited tokens (e.g., Bitcoin → 21 million).
   - **Inflationary:** New tokens minted over time.
   - **Deflationary:** Tokens burned periodically.
3. **Distribution:**
   - Mining, staking, airdrops, or liquidity incentives.
4. **Utility:**
   - Payment, governance, staking, collateral, or access rights.
5. **Incentive Design:**
   - Balances user rewards, inflation control, and long-term sustainability.

Procedure:

- Select a cryptocurrency project (e.g., Ethereum, Polygon, Solana).
- Collect tokenomics data from **CoinMarketCap**, including:
  - Total Supply
  - Circulating Supply
  - Inflation or burn mechanisms
  - Use cases and governance roles
- Analyze how the token's economic model sustains the network.
- Represent the token flow using a simple diagram:

  Token Minting → Distribution → Utility → Burning → Circulation
- Compare two projects (e.g., Bitcoin vs Ethereum) to observe token model differences.



Observation Table:

Feature	Bitcoin (BTC)	Ethereum (ETH)
Type	Store of Value	Utility / Gas Token
Consensus	Proof-of-Work (Limited supply)	Proof-of-Stake (Dynamic issuance)
Max Supply	21 Million BTC	No fixed cap
Inflation Control	Halving every 4 years	EIP-1559 burns base fees (deflationary)
Utility	Medium of exchange, store of value	Gas fees, staking, governance

ASSESSMENT

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: