



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 Experiment : Tokenomics 101 – Analyzing Crypto Economics

### Objective/Aim:

To understand the concept of **Tokenomics** and analyze how tokens function within a blockchain ecosystem, including their creation, distribution, and role in influencing user behavior and network sustainability.

### Apparatus/Software Used:

- VS code
- Brave for searching
- MetaMask wallet
- Reference sources: CoinMarketCap, CoinGecko, or project whitepapers

### Theory concept:

Tokenomics (Token + Economics) refers to the study of the economic model behind a cryptocurrency or token. It defines how a token is created, distributed, used, and destroyed within a blockchain project. Strong tokenomics ensures the project's stability, sustainability, and user engagement.

#### Key Concepts:

- **Token Supply:** Total number of tokens that will ever exist (e.g., Bitcoin – 21 million cap).
- **Circulating Supply:** Tokens currently in use or circulation.
- **Inflationary / Deflationary:** Determines whether new tokens are minted (inflation) or burned (deflation).
- **Utility Token:** Used for accessing products or services in an ecosystem (e.g., BNB, UNI).
- **Governance Token:** Provides voting rights in decentralized platforms (e.g., AAVE, COMP).
- **Staking / Rewards:** Incentivizes users to lock tokens for rewards, improving network security.
- **Burn Mechanism:** Reduces total supply by destroying tokens, increasing scarcity.

## Procedure:

1. **Initialize Token Supply:**
  - Define total supply of tokens (e.g., 1,000,000).
2. **Allocate Tokens:**
  - Divide the total supply into categories such as:
    - Team: 20%
    - Investors: 30%
    - Public Sale: 40%
    - Reserve: 10%
3. **Simulate Circulation:**
  - Track how tokens enter the market through staking, trading, or rewards.
4. **Apply Token Burning (Optional):**
  - Remove a small percentage of tokens from circulation to simulate deflation.
5. **Calculate Market Value:**
  - $\text{Token price} = \text{Market Cap} \div \text{Circulating Supply}$
6. **Display Final Metrics:**
  - Show total supply, circulating supply, burned tokens, and token price changes.

**Initial Token Supply:** 1,000,000

### Allocation:

Team: 200,000  
 Investors: 300,000  
 Public Sale: 400,000  
 Reserve: 100,000

### After Circulation:

Burned Tokens: 20,000  
 New Circulating Supply: 980,000  
 Market Cap: \$4,900,000  
 Token Price: \$5.00

### Output Example:

Total Supply: 1000000  
 Tokens Burned: 20000  
 Circulating Supply: 980000  
 Current Token Price: \$5.00

## Observation:

Understanding tokenomics is essential for evaluating a cryptocurrency's real-world potential. Projects with transparent distribution, clear utility, and controlled inflation models are more likely to achieve long-term success.

## 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		
<b>Total</b>	<b>50</b>		

***Signature of the Student:***

***Name :***

***Regn. No. :***

***Signature of the Faculty:***

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