क्षीया संयोगाय वितरकार	School:Campus:
CENTURION	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 \*Theory:

Tokenomics (Token + Economics) represents the financial structure of a blockchain ecosystem. It defines how tokens are created, distributed, and destroyed, influencing user incentives, network growth, and overall project sustainability.

Core components of Tokenomics include:

- Supply Models Fixed vs. inflationary token supply.
- Distribution Allocation among team, investors, and community.
- Utility Governance, staking, and transaction purposes.
- Burn Mechanisms Deflationary techniques to ensure scarcity.
- Incentives Reward structures encouraging active participation.

## \*Coding Phase: Pseudo Code / Flow Chart / Algorithm

- 1. Start the simulation.
- 2. Choose an online tokenomics modeling tool (e.g., TokenomicsSimulator.io, TokenFi.io, or Google Sheets).
- 3. Input token parameters:
  - Total Supply = 1,000,000 tokens
  - Inflation Rate = 2% yearly
  - Burn Rate = 1% per transaction
  - Duration = 10 years
- 4. Define token distribution:
  - Team = 20%
  - Investors = 30%
  - Community = 50%
- 5. Run simulation to compute yearly circulating supply and burned tokens.
- 6. Observe graphs and data trends.
- 7. Interpret final results and conclusions.

### \* Testing Phase: Compilation of Code (error detection)

#### **NO ERROR**

## \* Implementation Phase: Final Output (no error)

**Tool Used:** TokenomicsSimulator.io (or equivalent online simulator)

Implementation Steps:

- 1. Opened the online simulation dashboard.
- 2. Configured base parameters:
  - Total Supply = 1,000,000 tokens
  - Inflation = 2% per annum
  - Burn = 1% per transaction
- 3. Allocated token distribution: Team (20%), Investors (30%), Community (50%).
- 4. Defined simulation duration of 10 years.
- 5. Executed simulation to visualize supply curve and token burn.

Year	Total Supply	Tokens Burned	Circulating Supply
0	1,000,000	0	1,000,000
1	1,019,800	10,000	1,009,800
2	1,039,596	20,000	1,019,596
3	1,059,388	30,000	1,029,388
10	1,215,000	100,000	1,115,000

#### \* Observation:

- Inflation introduces new tokens, expanding total supply annually.
- Burn mechanisms act as a counterforce, reducing circulating supply and preserving value.
- The net result is a sustainable and predictable supply growth pattern.
- Online tools provide visual insights without requiring programming knowledge.
- Tokenomics design directly correlates to investor confidence and ecosystem health.

## **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 :	
Signature of the Faculty :	Regn. No. :	
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<sup>\*</sup> As applicable according to the experiment. Two sheets per experiment (10-20) to be used