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 : Build a Use Case – Tokenized Supply Chain

* Coding Phase: Pseudo Code / Flow Chart / Algorithm

- Start
- Initialize blockchain network and deploy a Token Smart Contract.
- Define Participants:
  - Manufacturer
  - Distributor
  - Retailer
  - Customer
- Manufacturer creates goods and mints tokens representing each product.
- Transfer tokens to the Distributor once goods are shipped.
- Distributor verifies token ownership and forwards tokens to Retailer.
- Retailer sells products and transfers final token to Customer.
- Each transfer is recorded on blockchain ensuring traceability.
- Verify all transactions using a blockchain explorer.
- Stop

Software used:

1. Language: Solidity
2. IDE: Remix IDE
3. Network: Ethereum Testnet (Goerli)
4. Tool: MetaMask Wallet
5. Browser: Google Chrome

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

* Implementation Phase: Final Output (no error)

 Blockchain Network Initialized:

Smart contract for token creation deployed successfully on the test network.

 Participants Added:

Manufacturer, Distributor, Retailer, and Customer accounts created.

 Token Minting Successful:

Manufacturer minted tokens representing goods with unique IDs.

 Token Transfers Completed:

Manufacturer → Distributor

Distributor → Retailer

Retailer → Customer

 Verification:

All token transactions recorded and verified on the blockchain explorer without any error.

* Observations:

- Smart contract deployed successfully on the blockchain network.
- Each participant was able to send and receive tokens without error.
- Every token transfer was recorded transparently on the blockchain.
- Token IDs helped in tracking products at every stage of the supply chain.
- The entire process showed secure and verifiable movement of goods using blockchain technology.

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:

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

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