Class Test (1) Examination: Spring-2026
Course Code: CIS 331 (Batch: 17_A)
Course Title: Introduction to Blockchain and Cryptocurrencies
Date: 27/01/2026

Time: 30 Minutes **Total Marks: 15**

1. ***Read the following scenario and answer the question accordingly:*** [6]

A group of independent organizations (farmers, transport companies, warehouses, exporters, and retailers) wants to build a system to track agricultural products from the farm to the consumer.

- Each organization is independent and does not fully trust others.
- Once data is recorded (for example: harvest date, temperature-moisture of the plant, storage condition, transport time), it must not be altered.
- All participants should be able to verify the history of a product.
- The system should not rely on a single central authority.
- Automated actions (for example: payment release after delivery confirmation) are required.

Based on this scenario, which database system would you choose? - Justify your answer briefly.

2. Explain the architecture of blockchain technology. Briefly discuss the key characteristics of blockchain and how these characteristics differentiate blockchain from traditional centralized systems. [5]

3. Explain the three main stages of a smart contract in detail, describing why these stages are important for ensuring automation, security, and trust in blockchain-based systems. [4]