Class Test (3) Examination: Summer-2026

Course Code: CIS 331 (Batch: 18_A)

Course Title: Introduction to Blockchain and Cryptocurrencies

Date: 01/08/2026

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

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

A consortium of ten regulated banks operates a shared blockchain for interbank settlement. The developers propose a protocol upgrade that introduces a new transaction format that old nodes cannot validate. Most banks install the upgraded software, but two banks continue using the old rules. The consortium also requires fast block confirmation, low energy consumption, predictable finality, and validators whose real-world identities are known.

Based on this scenario, answer the following:

a. Identify the type of fork that may occur after this protocol upgrade and justify your answer. Hard [2]

b. Explain the possible consequences if both groups continue producing blocks. In your answer, discuss the shared pre-fork history and the creation of two ledgers or assets. [5]

c. Recommend the most suitable consensus mechanism for this banking consortium and explain how it satisfies the stated requirements. [3]

2. Compare Proof of Work (PoW) and Proof of Stake (PoS). [5]