PART A — THEORY ANSWERS

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1. Difference Between As-Is and To-Be Process Models

As-Is process models describe how a process currently operates in reality. They capture existing workflows, roles, handoffs, delays, and inefficiencies without suggesting improvements. The purpose of an As-Is model is to understand the current situation and identify problems.

To-Be process models, on the other hand, represent the improved or future state of the process after optimization. They show how the workflow should ideally function using automation, reduced delays, and better coordination.

The key difference is that As-Is focuses on *understanding the current system*, while To-Be focuses on *designing an improved system*.

Why They Should Never Be Mixed in One Diagram

As-Is and To-Be models should never be combined in the same diagram because:

- It creates confusion between current and future workflows
- Stakeholders may misunderstand which steps are real vs proposed
- It becomes difficult to analyze inefficiencies properly
- Decision-making requires clear separation of “problem” and “solution” states

Therefore, they must always be presented as separate diagrams.

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2. Why Both Use Case and Activity Diagrams Are Required

UML Use Case diagrams and Activity diagrams serve different but complementary purposes when moving from process understanding to system design.

A **Use Case diagram** provides a high-level view of system functionality. It identifies actors (users or external systems), their interactions with the system, and system boundaries. It answers the question: *“What does the system do and who uses it?”*

An **Activity diagram**, however, describes the detailed workflow of a specific use case. It shows the sequence of actions, decisions, branching paths, and process logic. It answers the question: *“How does the system perform a specific task step by step?”*

Both are required because Use Case diagrams give a functional overview, while Activity diagrams provide detailed operational flow necessary for implementation.