Question 1 (20 Marks)

Discuss storming and performance phases to be conducted by the project development team. In addition, familiarize yourself with possible barriers that the project teams may face.

According to *Successful Project Management (7th Ed.)*, project teams progress through five stages of development: forming, storming, norming, performing, and adjourning (Chapter 4, "Developing the Project Plan," pp. 106–108).

- **Storming Phase**:
  During this stage, team members experience conflict and competition as they assert their ideas. Members challenge each other's approaches and struggle to establish roles. The project manager must manage disagreements and build trust to prevent the team from becoming dysfunctional. Effective communication and clarification of objectives are essential for moving past this phase.

- **Performing Phase**:
  In the performing stage, the team operates as a well-organized unit. Members collaborate efficiently, resolve issues constructively, and focus on achieving project objectives. The project manager acts primarily as a facilitator since the team becomes self-directed and motivated by shared goals.

- **Barriers Faced by Project Teams** (Chapter 4, pp. 109–110):

  1. **Poor Communication**—misunderstandings that delay tasks.
  2. **Lack of Trust**—members withholding information or cooperation.
  3. **Role Ambiguity**—unclear responsibilities causing confusion.
  4. **Conflicts of Interest**—differences in priorities or objectives.

5. **Cultural or Personality Differences**—affecting collaboration and morale.

Question 2 (25 Marks)

Discuss risk management and the processes involved in the identification of such risks when launching a new project.

The textbook defines *risk management* as the systematic process of identifying, analyzing, and responding to project risks to minimize their impact (Chapter 7, "Managing Risk," pp. 218–224).

The **risk management process** includes the following steps:

1. **Risk Identification** – Recognizing potential events or conditions that may affect the project's success. Tools include brainstorming, checklists, and expert judgment.

2. **Risk Assessment** – Evaluating each identified risk in terms of probability and potential impact.

3. **Risk Response Development** – Determining strategies such as avoiding, transferring, mitigating, or accepting risks.

4. **Risk Monitoring and Control** – Tracking identified risks, reassessing them, and implementing contingency plans when necessary.

When launching a new project, identification focuses on factors like unclear scope, resource limitations, new technologies, or external dependencies (Chapter 7, pp. 221–223).

Question 3 (20 Marks)

A clear understanding of resource availability and budget constraints when a project team embarks on a new project, zoom into resource leveling and types of costs.

In *Successful Project Management* (Chapter 8, "Developing the Project Plan," pp. 250–255):

- **Resource Availability**: The extent to which personnel, equipment, and materials are accessible for project activities. The project manager must consider both quantity and timing.

- **Budget Constraints**: The financial limits defined in the cost baseline that dictate how resources are allocated.

- **Resource Leveling**: A technique to address resource over-allocation by adjusting activity start and finish dates. The goal is to achieve a smooth resource usage pattern without violating project constraints (pp. 253–254).

- **Types of Costs** (Chapter 5, "Budgeting the Project," pp. 150–154):

    1. **Direct Costs**—labor, materials, and equipment directly tied to work packages.

    2. **Indirect Costs**—shared costs such as supervision or utilities.

    3. **Fixed Costs**—do not vary with project activity (e.g., rent).

    4. **Variable Costs**—change based on resource usage or activity level.

Question 4 (10 Marks)

Candidates must be able to calculate the earliest start (ES) and earliest finish (EF) times.

Based on *Chapter 6, "Developing the Project Schedule," pp. 180–182*:

- **Earliest Start (ES)**: The earliest time an activity can begin after all predecessor activities have finished.
  Formula:
  ES = maximum (EF of all immediate predecessors)

- **Earliest Finish (EF)**: The earliest time an activity can be completed.
  Formula:
  EF = ES + Activity Duration

These calculations form part of the forward pass in the Critical Path Method (CPM) to determine project scheduling.

Question 5 (10 Marks)

Describe Project Management Information Systems (PMIS) with a closer look at the role of the project manager in the phases of project development.

According to *Chapter 2, "The Project Management and Information System Environment," pp. 40–42*:

A **Project Management Information System (PMIS)** is an integrated set of tools and procedures that provide project data for decision-making. It assists with planning, scheduling, resource allocation, and performance tracking.

The **project manager's role** across project phases includes:

- Initiation: Using PMIS to establish baselines and define objectives.

- Planning: Developing schedules, budgets, and communication plans.

- Execution: Monitoring progress and updating data.

- Closing: Archiving documents and generating performance reports.

Question 6 (10 Marks)

A clear understanding of Minimum Viable Product (MVP). Candidates must be able to describe Scrum and Kanban in project development.

In *Successful Project Management* (Chapter 12, "Agile Project Management," pp. 360–366):

- **Minimum Viable Product (MVP)**: The smallest, usable version of a product that delivers value to users while allowing feedback for future iterations.

- **Scrum**: An agile framework with short, time-boxed iterations (sprints). Teams work collaboratively under roles such as Product Owner, Scrum Master, and Development Team. Deliverables are reviewed at sprint reviews for continual improvement.

- **Kanban**: A visual workflow system that manages work in progress. Tasks are displayed on a Kanban board with columns like "To Do," "In Progress," and "Done." It emphasizes continuous flow rather than fixed iterations.

Question 7 (5 Marks)

An understanding of Scrum meetings and how they are conducted to get relevant updates. In addition, understand the benefits and drawbacks of Scrum.

From *Chapter 12, pp. 364–366*:

- **Scrum Meetings** (also called Daily Stand-ups): Short, daily sessions where team members discuss what was completed, what will be done next, and any obstacles. These promote accountability and transparency.

- **Benefits of Scrum**:

    1. Promotes frequent feedback and adaptation.

    2. Enhances team collaboration and visibility.

    3. Accelerates delivery of functional components.

- **Drawbacks of Scrum**:

    1. Requires experienced teams to self-manage effectively.

    2. Scope changes can cause instability if not managed.

    3. Time demands on team members may be high.