Backup and Recovery Mechanisms

1. Backup Strategy

- **Full Backup: Weekly** – A complete snapshot of all data.

- **Differential Backup: Daily** – Captures changes since the last full backup.

- **Transaction Log Backup: Every 4 hours** – Saves database changes frequently for minimal data loss.

- **Real-time replication** – Continuous synchronization across production and backup systems.

2. Recovery Objectives

- **Recovery Time Objective (RTO)**: 2 hours

- **Recovery Point Objective (RPO)**: 15 minutes

3. Backup Locations

- **Primary data center** – Centralized and high-speed storage.

- **Geographically dispersed secondary data center** – Ensures business continuity in regional disasters.

- **Cloud backup with military-grade encryption** – Secure and accessible from multiple regions.

- **Offline tape backups for critical data** – Durable, long-term archival and cyberattack protection.

4. Recovery Procedure

1. Immediate system isolation

2. Comprehensive damage assessment

3. Backup restoration from the most recent clean point

4. Data integrity verification

5. Gradual system restoration

6. Post-incident analysis