Short Answer Notes:

1. **System Architecture:**

   o **Definition:** The structural design of a system, detailing the arrangement of components and their interactions.

   o **Layers:**

      ▪ **Presentation Layer:** User interface (UI) for interacting with the system.

      ▪ **Application Layer:** Logic and processes for managing data.

      ▪ **Data Layer:** Storage and retrieval of product-related data.

Long Answer Notes:

1. **System Architecture in PLM:**

   o **Overview:** System architecture in PLM refers to the design and organization of the various components that make up the PLM system. This architecture ensures that all components work together efficiently to manage the product lifecycle.

   o **Layers of System Architecture:**

      ▪ **Presentation Layer:** This layer serves as the user interface (UI), allowing users to interact with the PLM system. It includes dashboards, data entry forms, and report generation tools. The presentation layer must be user-friendly to ensure widespread adoption within the organization.

      ▪ **Application Layer:** This is the core of the PLM system, where business logic and processes are executed. It includes modules for data management, workflow automation, change management, and collaboration. This layer ensures that the right data is available to the right users at the right time.

      ▪ **Data Layer:** This layer is responsible for storing, retrieving, and managing the vast amounts of data generated throughout the product lifecycle. It includes databases and data warehouses that store design data, documents, BOMs, and more. The data layer must be robust and scalable to handle growing data volumes.