To address the marking criteria effectively, the section on the **Business Intelligence (BI) System** design will need to:

1. **BI Architecture Overview**:
   * **Data Sources**: Begin by explaining how data is sourced from each store in real-time. These include sales data, customer demographics, product lines, etc. This can also include details like customer ratings, payment methods, and sales categories (e.g., food, beverages, electronics).
   * **ETL Process**: Describe how the Extract, Transform, Load (ETL) process ensures that this data is efficiently moved into the central cloud-based database, handling real-time data cleaning, consistency, and loading.
     + **Extraction**: Real-time data streams from the retail stores’ operational systems to the central cloud database.
     + **Transformation**: Explain the steps to handle missing data, standardize formats (such as date and currency formats), and ensure the data is consistent.
     + **Loading**: The transformed data is then loaded into the cloud-based data warehouse, where it’s organized and prepared for analysis.
2. **Data Storage and Modeling**:
   * **Cloud-based Data Storage**: You can emphasize that data will be stored centrally in the cloud, making it scalable and accessible.
   * **Schema Design**: Mention that the data will be stored using a star schema with fact and dimension tables for optimized reporting. Fact tables could store sales transactions, while dimension tables cover products, customers, branches, etc.
   * **Advantages of Cloud-Based Data Warehousing**: Highlight that cloud-based storage enables scalability, real-time access, and integration with tools like Power BI.
3. **Data Access & Reporting**:
   * Explain how **Power BI** is used to connect to the cloud-based database for real-time reporting and visualizations. Power BI dashboards will offer both real-time and ad-hoc reporting capabilities.
   * Discuss **real-time analysis** using visual analytics to detect trends, patterns, and anomalies across different branches. The system could provide insights into customer behavior, popular products, or sales trends.
4. **Security & Permissions**:
   * Highlight the **user access controls** and data privacy measures. Role-based access controls (RBAC) will ensure that only authorized personnel can view or edit data.
   * Discuss how encryption and secure data transfer protocols (such as SSL/TLS) will be employed to protect data.

This structure not only aligns with the BI system requirements but als