 ANS1. database is an organized collection of data, stored and accessed electronically. Databases are used to store and manage large amounts of Strucuted and un structured data and they can be used to support a wide range of activities, including data storage, data analysis, and data management. There are many different types of databases, including relational databases, object-oriented databases, and databases, and they can be used in a variety of settings, including business, scientific, and government organizations.

ANS2. A file-based storage system is a traditional approach to storing and managing data, where data is stored in individual files on a computer’s file system. Each file contains a collection of records, with each record representing an entity or object in the system. The data in each file is usually organized in a simple, flat structure, with no relationships established between files..

ANS3.  Management System)

Database Management System is basically software that manages the collection of related data. It is used for storing data and retrieving the data effectively when it is needed. It also provides proper security measures for protecting the data from unauthorized access. In Database Management System the data can be fetchedand relational algebra. It also provides mechanisms for data recovery and data backup.

Ans4. Data sharing: The file system does not allow sharing of data or sharing is too complex. Whereas in DBMS, data can be shared easily due to a centralized system.

* Data concurrency: Concurrent access to data means more than one user is accessing the same data at the same time. Anomalies occur when changes made by one user get lost because of changes made by another user. The file system does not provide any procedure to stop anomalies. Whereas DBMS provides a locking system to stop anomalies to occur.
* Data searching: For every search operation performed on the file system, a different application program has to be written. While DBMS provides inbuilt searching operations. The user only has to write a small query to retrieve data from the database.
* Data integrity: There may be cases when some constraints need to be applied to the data before inserting it into the database. The file system does not provide any procedure to check these constraints automatically. Whereas DBMS maintains data integrity by enforcing user-defined constraints on data by itself.