

Foundation of Information Practices  
Class-10  
ch3

A. Answer the following

(1\*7)

1. Name the Database Management System from MS Office suite.

Ans : MS ACCESS

2. What do we call an organized collection of information that can easily be accessed, managed and updated?

DATABASE

3 Which process arranges the data in a proper sequence?

SORTING/INDEXING

4 Name the term which is used to get the synopsis of data on the basis of some criteria.

Query

5 Name the term which is caused in a database due to duplication of data which in turn gives rise to data inconsistency.

Data redundancy

6 Which feature in DBMS allows multiple transactions to access and modify shared data at the same time, without violating the data integrity?

Data concurrency

7 What is the extension of the Database file in MS Office Access?

.mdb

B. Answer the following

(2\*4)

1 What is a Database? Give two examples.

A database is a collection of information that is organized so that it can be easily accessed, managed and updated.

Data is organized into rows, columns and tables, and it is indexed to make it easier to find relevant information. Data gets updated, expanded and deleted as new information is added. Databases process workloads to create and update themselves, querying the data they contain and running applications against it.

2 Define Concurrency Control.

Concurrency control is a database management systems (DBMS) concept that is used to address conflicts with the simultaneous accessing or altering of data that can occur with a multi-user system. Concurrency control, when applied to a DBMS, is meant to coordinate simultaneous transactions while preserving data integrity. [1] The Concurrency is about to control the multi-user access of Database.

3 Describe the feature of Backup and Recovery Management.

Ans: There are two types of data backup – physical data backup and Logical data backup. The physical data backup includes physical files like data files, log files, control files, redo- undo logs etc. They are the foundation of the recovery mechanism in the database as they provide the minute details about the transactions and modification to the database. Logical backup includes backup of logical data like tables, views, procedures, functions etc. Logical data backup alone is not sufficient to recover the database as they provide only the structural information.

4. Define Tables. List the different elements of a Table.

Field / Column: The information of a table stored in some heads, those are fields or columns. Columns show vertically in a table.

Column name: Each field or column has an individual name. A table cannot contain the same name of two different columns

Record/ row All the columns in a table make a row. Each row contains all the information of individual topics.

Column Value: The value of each field makes a row is the column value.

Key Field: Each table should contain a field which can create a link with another one or more table is the key field of a table.

### C. Answer The Following

(3\*5)

1. What do you understand by a Database Management System? Explain how it is helpful in Data Retrieval.

Ans: A database management system (**DBMS**) is system software for creating and managing databases. The **DBMS** provides users and programmers with a systematic way to create, retrieve, update and manage data. As data is stored in indexed way that's why it can be retrived easily and in faster mode.

2. What is the difference between Data Storing and Data Sorting?

Ans :

Data Storing: it is keeping of records in system for future use in form of files or databse

Data Sorting: it is arranging of data either in ascending or descending order on a specific field/column.

3. Differentiate between Flat File Database and Relational Database. Give examples for both.

Ans:

#### Flat File Database

A flat file database is a database designed around a single table. The flat file design puts all database information in one table, or list, with fields to represent all parameters. A flat file may contain many fields, often, with duplicate data that are prone to data corruption. If you decide to merge data between two flat files, you need to copy and paste relevant information from one file to the other. There is no automation between flat files

#### Relational Database

A relational database, on the other hand, incorporates multiple tables with methods for the tables to work together. The relationships between table data can be collated, merged and displayed in database forms.

4. What do you understand by a relational database? Give example.

#### Relational Database

A relational database, on the other hand, incorporates multiple tables with methods for the tables to work together. The relationships between table data can be collated, merged and displayed in database forms. Most relational databases offer functionality to share data:

- Across networks
- Over the Internet
- With laptops and other electronic devices, such as palm pilots
- With other software systems

5. List the features of RDBMS.

ANS:

- A command language that allows you to create, delete and alter the database (data description language or DDL)
- A way of documenting all the internal structures that make up the database (data dictionary)
- A language to support the manipulation and processing of the data (data manipulation language)

- Support the ability to view the database from different viewpoints according to the requirements of the user
- Provide some level of security and access control to the data