CHAPTER-7:DATABASE AND DBMS-AN INTRODUCTION

E. Answer the following:

1. **A database** is an organized collection of data which helps us to enter, manage, access, andanalyse a large amount of information quickly and efficiently. Examples of database are maintaining addresses and phone numbers of our friends, creating a list of library books, keeping students' records pertaining to academic and co-curricular achievements, keeping employees' information, etc.

2. **FLAT FILE DATABASE:**A flat file database refers to the data files that contain records, which have a small, fixed number of fields, without any structured relationship. For example, Microsoft Excel.

RELATIONAL DATABASE:A relational database stores the data in several tables and links those tables together to get a common piece of information. For example, Microsoft Access, Microsoft SQL, Oracle

3. Tables are the building blocks of a database which store the complete data in a structured manner, i.e., in the form of rows and columns. Elements of a Table are: Fields, Records, and Data.

4. A Data type is used to declare the fields of a table and determines the type of data, a particular field can accept. Once the data type is defined, we cannot enter a different type of data in it.

Text: It is used to store text or a combination of text and numbers that does not require calculations, such as addresses, phone numbers, etc. The fields with this data type can have maximum of 255 characters.

5. A Primary key is a sort of check on the table that every record in the table is unique. The field which is designated as the Primary key of a table can neither have duplicate data nor can it be left blank while entering the data.

For example: A Students table; we all know that each student in a class has a unique Roll No that cannot be assigned to any other student. Hence, Roll No can be defined as a Primary key to uniquely identify each record.

CHAPTER-8:WORKING WITH TABLES AND QUERIES

E. Answer the Following:

1. Sorting means arranging the data either in the ascending or descending order. We can sort data within a table based on the values of a particular field.

To sort the data,follow the steps given below:

- ✓ Select the field that you wish to sort.
- ✓ Click on the drop-down arrow of its field header.
- ✓ Select either Sort Smallest to Largest or Sort Largest to Smallest option from the drop-down list (if the field is numeric) or select the Sort A to Z or Sort Z to A option (if the field is alphanumeric). Observe the change in the database.

2. Filtering in a Datasheet implies displaying specific records while hiding rest of the records until the filter effect is cleared. This is the utility of Filtering in datasheet.

3. **A Query is a database object** that helps a user to retrieve and view information from one or more database tables that meet a specific condition/criteria, specified by the user.

Major Parts of a Query Window are as follows:

a) Design Area : It is present at the top and displays the fields, tables, and queries that you may want to use in the query.

b) Grid : It is present at the bottom and contains columns where you can set up the fields.

4. A Criteria is the one which contains the condition on the basis of which the records can be filtered in the Query output. If an item matches all the criteria you enter, it appears in the query results.

5. It is an advanced version of the normal filter. By specifying the customized filter criterion, it further narrows down the display of the records.

It can be applied on atable in the datasheet by the following steps:

- ✓ Click on drop-down arrow present to the right of the selected column header.
- ✓ Select The Number filters option after which a cascading menu appears.
- ✓ Select any options from the list (Equals, Does Not equal, Less Than, Greater Than,
- ✓ Between)
- ✓ The Custom Filter dialog box appears in which type the required number and click OK.