CHAPTER - 7
DATABASE MANAGEMENT SYSTEM (DBMS)

(QUESTIONS WITH ITS SOLUTIONS)

Question Pattern:
Very Short : 1 Mark Type
Short Q/A : 2 Marks Type

Answer the following questions in one sentence. [1 Mark Type]

1. Which data type is used to store numeric characters or special symbols in MS Access?
Ans: Text data type is used to store numeric characters or special symbols in MS-Access.

2. What is default size of text field in MS – Access?
Ans: Default size of short text field is 255 characters in MS-Access.

3. Which data type is used to store photo in MS- Access?
Ans: OLE object data type is used to store photo in MS – Access.

4. Which view is used to modify a table structure in MS-Access?
Ans: Design view is used to modify a table structure in MS Access.

5. Which view is used to insert a data in a table in MS Access?
Ans: Datasheet view is used to insert a data in a table in MS Access.

6. Which data type is used to store date of birth of an employee in MS-Access? **Ans:** Date / Time data type is used to store date of birth of an employee in MS Access.

7. Write any four data type used in MS-Access database.
Ans: Two data type used in MS – Access database are:
a. Number
b. Short Text
c. Currency
d. Auto Number

8. Define MS-Access.
Ans: MS-Access is DBMS software developed by Microsoft Corporation which consists of several different components (objects) that helps in creating sophisticated database quickly.

9. What is the storage size of memo and text data type in MS- Access?

Ans: The storage size of memo and text data type in MS Access is mentioned below:-

Data Type	Storage Size
Memo (Long Text)	Up to 64,000 Characters
Short Text	Up to 255 Characters

10.Which data type is used to store phone number in MS - Access? Ans:
Number data type is used to store phone number in MS- Access.

11.Which data type is used to store alphanumeric values in MS – Access? Ans:
Text data type is used to store alphanumeric values in MS Access.

12.What is the extension of database file in MS – Access?
Ans: .accdb is the extension of database file in MS Access.

13.What is the appropriate data type to store long description or paragraph in a database?
Ans: Memo or long text data type is used to store long description or paragraph in a database.

14.What is the default field size of number data type?
Ans: The default field size of number data type is long integer.

15. How many bytes does Date/Time data type occupies?
Ans: Date/Time datatype occupies 8 bytes of memory space.

16. What are the two methods to create a form?
Ans: Two methods to create form in database are using form design and using form wizard.

17.What are the two methods to create a report?
Ans: Two methods to create form in database are using report design and using report wizard.

18.What is the appropriate data type to store emails or links in a database? Ans:
Hyperlink is the appropriate data type to store emails or links in a database.

19. What is the use of caption field property in MS Access?
Ans: Caption field property is used to give custom name for any field.

20. In MS Access, how many characters can you enter for a field name? Ans:
In MS Access, 64 characters can be entered as a field name.

Answer the following question: [2 Marks Type]

1. Define data and information with suitable examples.

Ans: Data can be defined as raw form of any facts, figures or entities. Data alone does not give any meaning.

For example: Ram, 1000, account, balance etc.

The processed form of data is known as information. When the data becomes information, it gives meaningful result.

For example: Ram has 1000 balance in his bank account.

2. What is database? Give any four examples of it.

Ans: A database is an organized collection of data, typically stored electronically in a computer system which is used to store, organize and retrieve data. Various database management system such as MS Access, MySQL can be used create a database.

Some examples of database are telephone directory, mark ledger, attendance register, dictionary etc.

3. What is dbms? Write any four objects of MS-Access

Ans: Database management system (DBMS) is a computerized system that stores data, processes them and provides information in an organized form. Creating, modifying, updating, sorting, removing, retrieving are the major tasks performed using Database management system. Eg: MS-Access, Oracle, MySQL etc.

Any **four objects of MS Access** are listed below:

a. Table
b. Form
c. Report
d. Query

4. What is DBMS? Write any two advantages of it.

Ans: Database management system (DBMS) is a computerized system that stores data, processes them and provides information in an organized form. Creating, modifying, updating, sorting, removing, retrieving are the major tasks performed using Database management system. Eg: MS-Access, Oracle, MySQL etc.

Any **two advantages** of dbms are mentioned below:

a. Using dbms data management or data administration task will be efficient and fast.
b. Large volume of data can be stored and updated easily.

5. What is RDBMS? Explain it with its example.

Ans: Relational Database Management System (RDBMS) is a type of database management system (DBMS) that stores data in a row-based table structure which connects related data elements.

For example: MySQL, MS Access, Oracle Database

6. What is primary key? List any two advantages of it.

Ans: Primary Key is a special field or group of fields in the table that uniquely identifies each record from the database which does not accept duplicate values for a field and does not allow a user to leave the field blank or null.

The two advantages of primary key are listed below:

a. Primary key helps to identify the data uniquely ensuring data integrity. b. It helps to avoid the duplication in the data.

7. What is primary key? Write its importance.

Ans: Primary Key is a special field or group of fields in the table that uniquely identifies each record from the database which does not accept duplicate value for a field and does not allow a user to leave the field blank or null.

The importance of primary key are listed below:

a. To identify each record of a table uniquely.

b. To reduce and control duplication of the record in a table.

c. To set the relationship between tables.

8. Differences between primary key and foreign key with examples. Ans:

Differences between primary key and foreign key are shown below in a tabular format:

Primary Key	**Foreign Key**
1. Primary Key is a special field or group of fields in the table that uniquely identifies each record from the database.	1. Foreign key is an attribute (column) in a table that refers to the primary key of another table.
2. Primary key can't contain duplicate value.	2. Foreign key can contain duplicate value.
3. **For example:** A table called Student may have an attribute, Student_ID which uniquely identifies the records in a table.	3. **For example:** A table called Marksheet may have an attribute, Student_ID, which is a foreign key referencing student id and name in a table named Student.

9. Define record with example. Why is primary key necessary in record?

Ans: A record or row contains information about single items in a database. It is also called tuple.

For example:

In Table – Book Records, all the information about a book is record.

Code	Book Name	Author	Year of publication
B001	Half Girlfriend	Chetan Bhagat	2014

The importance of primary key are listed below:

a. To identify each record of a table uniquely.

b. To reduce and control duplication of the record in a table.

c. To set the relationship between tables.

10.What is data sorting? List any two advantages of using it.

Ans: The process of arranging all the records in a table either ascending or descending order based on fields is known as sorting.

Two advantages of data sorting are listed below:

a. Sorting data makes it easier to quickly locate specific items in a dataset.

b. Sorting data can help to organize and simplify data analysis tasks.

11.What is data sorting? Write any two examples.

Ans: The process of arranging all the records in a table either ascending or descending order based on fields is known as sorting.

Two examples of data sorting are mentioned below:

Example 1:

Text types of data are sorted in alphabetical order (i.e. A to Z or Z to A).

Example 2:

Date and Time data are sorted from oldest to newest or newest to oldest date.

12.What are validation rule and validation text? Explain it with example. Ans:

Validation rule is a field property which is used to limit the values that can be entered into a field.

For example: In Marksheet table marks for each subject can be restricted in between 0 and 100 by writing the rule in validation rule field as:

Validation Rule: Between 0 and 100.

Validation text is a field property which is used to set the error message that appears if the data entered is invalid according to the specified validation rule.

For example: In Marksheet table marks for each subject is restricted in between 0 to 100 and validation message can be maintained in validation text field as,
Validation Text: Marks must be in between 0 and 100.

13.What is form? Write any two uses of it.

Ans: Form is MS-Access database objects that is primarily used to create an interface for entering data in a table or multiple linked tables. It is basically Graphical User Interface (GUI) which is used to interact with MS Access database.

Any two uses of form are:
a. To collect the required information in a logical, meaningful fashion. b. It Enhances the productivity as it makes data entry task easier which ultimately saves time.

14.Define form. Write its importance.

Ans: Form is MS-Access database objects that is primarily used to create an interface for entering data in a table or multiple linked tables. It is basically Graphical UserInterface (GUI) which is used to interact with MS Access database.

Some importance of forms is listed below:
a. Speeds up the data entry task as it provides GUI to the user.
b. Users can add, edit, or display the data stored in database.
c. To provide a specific data entry location for each field of the database form can be used.

15.What is report? Mention its uses.

Ans: Report is one of the MS-Access database objects which is used to present information in an effective and organized format that is ready for printing. Once the report is generated we can't edit the data of that report.

Some of the uses of report are:
a. It helps to present the retrieved data in a user friendly, understandable and formatted manner.
b. It is used to provide hard copy print out of the database table.

16. Define query in MS Access with its types. List any two advantages of it. Ans:

Query is the question asked for the database. It is simply a request to perform different operations such as select, create, update, delete and append records on the database.

Various types of MS Access queries are:
a. Select Query
b. Action Queries
- Delete Query
- Update Query
- Append Query
- Make table Query

Any two advantages of query are:

a. Using select query we can view data only from the fields(column) that we are interested in viewing.
b. Using update query multiple fields and records data can be updated in an easy fashion.

17. What types of work is done in MS-Access using form and query object?

Ans: Form is MS-Access database objects that is primarily used to create an interface for entering data in a table or multiple linked tables.

Query is the question asked for the database which is simply used to request and perform different operations such as select, create, update, delete and append records on the database.

18. Differences between sorting and filtering with example.

Ans: The differences between filtering and sorting are mentioned below in a tabular format:

Sorting	Filtering
1. The process of arranging all the records in a table either ascending or descending order based on fields is known as sorting.	1. Filtering is the process of selecting certain data based on certain criteria, such as only selecting data that is above a certain number or date.
2. Sorting is often used to make data easier to read.	2. Filtering is used to find specific information.
3. For example: Sorting the name according to alphabetically in student database.	3. For example: Filtering and viewing only the records of class 10 students from student database.

19.Differentiate between Query and Report.

Ans: The differences between **query** and **report** are mentioned below in a tabular format:

Query	Report
1. Query is the question asked for the database.	1. Report is one of the MS-Access database objects which is used to present information in an effective and organized format that is ready for printing.
2. It is used to perform certain operations like update, delete, select, append records in database.	2. It is used to view database table in desired format which provides summary of the data.

20.Write down the ways of performing queries in the MS Access table.

Ans: Query is the question asked for the database. The various ways of performing queries in MS Access table are:

1. Using Query Design

⇨ Displays table schemes, along with their relationships, and allows the user to select columns to return and specify criteria.

2. Using Query Wizard

⇨ Easiest way to create a query as every `field of database can be selected easily and query execution can be done efficiently.

21. What is indexing and why is it used? What are the indexed property settings ?

Ans: Index is a field property used to speed up searching and sorting of records based on a field. By default, indexed property is set as No.

The indexed property settings are:

Setting	Description
No	No indexing.
Yes (Duplicates OK)	The index allows duplicates.
Yes (No Duplicates)	The index does not allow duplicates.