

Class 10
IT/ITes
UNIT 3 – DATABASE MANAGEMENT SYSTEM (DBMS)

10 Multiple Choice Questions (MCQs)

1. Which of the following is a database software?
(a) LibreOffice Writer
(b) LibreOffice Calc
(c) LibreOffice Base ☒
(d) LibreOffice Impress
2. A database is a collection of ____ data.
(a) Random
(b) Related ☒
(c) Useless
(d) Temporary
3. In a database, a **record** represents:
(a) A row ☒
(b) A column
(c) A field
(d) A table
4. The smallest unit of data in a table is:
(a) Record
(b) Field ☒
(c) Table
(d) Database
5. Which view is used to design a table in LibreOffice Base?
(a) Data Sheet View
(b) Design View ☒
(c) Form View
(d) Report View
6. What is the function of a **Primary Key**?
(a) To identify each record uniquely ☒
(b) To delete duplicate records
(c) To format a table
(d) To hide fields
7. Which query type is used to display specific data from a table?
(a) Select Query ☒
(b) Update Query
(c) Delete Query
(d) Append Query

8. Which component of Base is used to enter data easily?
(a) Report
(b) Form ☒
(c) Query
(d) Table
9. Which database object is used to print summarized information?
(a) Query
(b) Report ☒
(c) Form
(d) Field
10. The extension of a LibreOffice Base file is:
(a) .odt
(b) .ods
(c) .odb ☒
(d) .odg
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10 Short Question and Answers

1. **What is a Database?**
→ A database is an organized collection of related data that can be easily accessed, managed, and updated.
2. **What is LibreOffice Base?**
→ It is the database management component of LibreOffice used to store, organize, and retrieve data.
3. **What is a Table in DBMS?**
→ A table is a structured arrangement of data in rows and columns.
4. **What is a Field?**
→ A field is a single piece of data about one record — it represents a column in a table.
5. **What is a Record?**
→ A record is a complete set of related fields — it represents a row in a table.
6. **Define Primary Key.**
→ A primary key is a unique identifier for each record in a table.
7. **What is a Query?**
→ A query is used to fetch or display specific information from a database based on certain conditions.
8. **What is a Form in DBMS?**
→ A form provides a user-friendly interface for entering and editing data in a table.
9. **What is a Report?**
→ A report is used to display data in a printable and formatted way.
10. **What is the file extension of a LibreOffice Base file?**
→ The extension is **.odb**.

10 Long Question and Answers

1. What is a Database Management System (DBMS)? Explain its advantages.

Answer:

A **DBMS** is software that stores and manages data in a structured form, making it easy to access, update, and manage.

Advantages:

- Reduces data duplication.
- Increases data security.
- Allows easy data access and modification.
- Ensures consistency and integrity.
- Supports multiple users simultaneously.

2. Explain the main components of LibreOffice Base.

Answer:

LibreOffice Base has four main components:

1. **Tables:** Store data in rows and columns.
2. **Queries:** Retrieve data based on conditions.
3. **Forms:** Allow users to enter and edit data easily.
4. **Reports:** Present data in a formatted and printable layout.

3. Explain the difference between a Field and a Record.

Answer:

Basis	Field	Record
Meaning	A single data item (column)	A complete set of data (row)
Example	"Name", "Age", "City"	"Ravi", "20", "Delhi"
Function	Defines the type of data stored	Represents one entry in the table

4. What is a Primary Key? Write its importance.

Answer:

A **Primary Key** is a field that uniquely identifies each record in a table.

Importance:

- Prevents duplicate records.
- Maintains data accuracy.
- Establishes relationships between tables.

Example: Student_ID in a Student Table.

5. Explain the steps to create a new database in LibreOffice Base.

Answer:

1. Open LibreOffice → Choose "Base Database."
2. Select "Create a new database."
3. Click **Next → Yes, register the database.**
4. Save the file with extension .odb.
5. Start creating tables, queries, forms, and reports.

6. What is a Query? Explain the steps to create a Select Query.

Answer:

A **Query** is used to retrieve specific information from one or more tables.

Steps:

1. Go to “Queries” → Create Query in Design View.
2. Add the table(s).
3. Select fields to display.
4. Add conditions (like marks > 60).
5. Run the query → Results are shown as a new table view.

7. What are Forms? Explain their purpose and use.

Answer:

Forms are graphical interfaces that make data entry and editing easier.

Purpose:

- Simplifies data entry for non-technical users.
- Reduces input errors.
- Allows navigation between records easily.

Steps:

1. Go to “Forms” → Create Form using Wizard.
2. Select table and fields → Choose layout → Finish.

8. What are Reports? Describe how to create one in Base.

Answer:

Reports summarize and present data in a professional format for printing.

Steps:

1. Go to “Reports” → Create Report in Wizard.
2. Choose table/query and fields.
3. Select grouping and sorting options.
4. Choose layout and design → Finish.

Use: Useful for invoices, summaries, and official documents.

9. Explain the relationship between Tables in a database.

Answer:

A **Relationship** connects data between two or more tables using a common field (Primary Key and Foreign Key).

Example:

- “Student Table” (Student_ID, Name)
 - “Marks Table” (Student_ID, Subject, Marks)
- Here, *Student_ID* links both tables.

Benefits:

- Reduces duplication.
- Ensures consistency.
- Enables relational queries.

10. Explain the difference between Tables, Queries, Forms, and Reports.

Answer:

Component	Description	Purpose
Table	Stores raw data in rows & columns	Data storage
Query	Extracts data using conditions	Data retrieval
Form	User interface for data entry	Data input
Report	Printable summary of data	Data presentation

Together, they make LibreOffice Base a complete database management system.

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