LECTURE NO.1   **TIME: 30 MIN.**

PREVIEW OF TODAY'S TOPICS	
A. MS- Access (Overview), Creating New Database, create a database using the Database wizard, opening and exiting existing database	Name: _____ Roll No: _____ Date: _____

MS - ACCESS (OVERVIEW), CREATING NEW DATABASE,

CREATE A DATABASE USING THE DATABASE WIZARD,

OPENING AND EXITING EXISTING DATABASE

EXTENSIVE QUESTION

Q.1   What are the advantages of using a Microsoft Access IDE?

SHORT QUESTIONS

(i)   **What is MS-Access?**   (LHR 2021) (BWP 2021) (K.B)

(ii)   **State the use of MS-Access?**   (RWP 2022) (U.B)

(iii)   **What is RDBMS?**   (BWP 2022) (RWP 2022) (FSD 2021) (SGD 2017) (K.B)

(iv)   **Write steps exiting Microsoft access.**   (MTN 2021) (A.B)

(v)   **Write down some advantages of RDBMS.**   (RWP 2018) (MTN 2021)(U.B)

(vi)   **What is database wizards?**   (LHR 2021)(K.B)
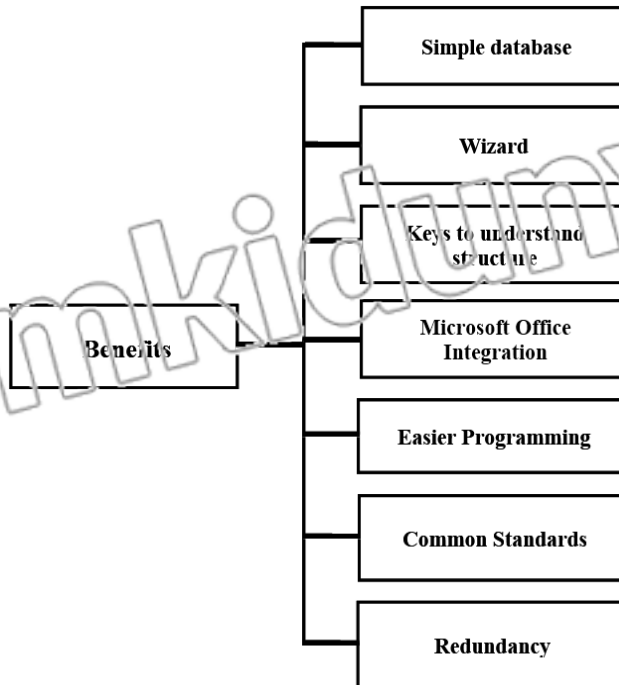
MS ACCESS (OVERVIEW)

(i)   Microsoft Access is one of the most popular and powerful DBMS.

(ii)   It has many built in features to assist you in constructing database and viewing information.

(iii)   MS-Access is much more involved and is a more genuine DBMS than other programs such as Microsoft Works. It is easy to understand and its graphical interface helps to create queries, forms, and reports.

(iv)   Inexperienced programmers can use Access to turn a stack of invoices, a card file of customer names, a ledger, and an inventory list into a relational database that makes entering, updating, and reporting information as easy as clicking a button.

RDBMS

(v)   Microsoft Access is a Relational Database Management System (RDBMS) that you can use to store and manipulate large amount of information.

MS ACCES BENEFITS

Sample databases:

    (i) It includes sample database applications to assist you learn about real world tables, forms, queries and reports.

    (ii) How they are interconnected to form a database management system.

- **Wizard:**

    (i) It makes very easy to create a database.

    (ii) You can choose from several examples of databases in the Database Wizard for such storage uses as contact information, inventory control, and a ledger.

    (iii) You can create and then modify these databases to meet your own needs.

- **Keys to understand the structure:**

    (i) To create and relate table, you can easily view all the relationships in the database with the graphical interface in the Relationship Window.

    (ii) This makes one, of the toughest parts of relational database design much easier and more manageable.

- **Microsoft Office integration:**

    (i) You can use MS-Access with Word, Excel, and other office application to create mail merges, charts, and other helpful uses for your data.

- **Easier programming:**

    (i) You can use relatively simple code with macros to automate repeated tasks, or you can try more complex and flexible code with VBA

    (ii) Access provides graphical shortcuts and hints to help writing easier codes.

- **Common Standards:**

    (i) It uses standards that help application scale up to work within larger environments.

    (ii) Access uses objects and SQL (Structure Query Language) to make its code from the adaptable to other application.

- **Redundancy:**

    (i) MS-Access allows you to store, retrieve, sort, analyze and print information contained in the database.

    (ii) Data may be manipulated without data redundancy by defining relationships between sets of data.

    (iii) Databases are often used for product data.

    (iv) Redundancy means duplication of data in multiple files. It wastes the storage media of computer.

CREATING NEW DATABASE, CREATE A DATABASE USING THE DATABASE WIZARD, WITHOUT USING DATABASE WIZARD AND OPENING & EXISTING DATABASE

CREATING NEW DATABASE

- Once Access has been accessed, choose the File New Database command from the menu at the top of the screen in order to create a new database.
- The database window is displayed.
- Choose the appropriate directory and drive.
- Then enter an eight-character name for the new database file and click "OK".
- When you start up MS-Access, you get a dialog box asking if you want to open and existing database or create new one.

Steps to open new database in MS-Access:

(i)   Create a New Database

(ii)   Create a File New Database using wizard

(iii) Open an existing database

CREATE A DATABASE USING THE DATABASE WIZARD

Definition: The database Wizard guides you through process of the creation a database; it includes choosing a database template, selecting fields, making customizations, adding pictures, and the database.

(i)   When Microsoft Access first starts up, a dialog box is displayed with options to create a new database or to open an existing one.

(ii)   When these dialog boxes appear, selects Access Database Wizards, pages, and projects and then click OK.

(iii) Microsoft Access startup, when you click the New Database on the toolbar.

(iv)   On the Databases tab, double-click the icon for the kinds of database you want to create.

(v)   Specify a name and location for the database.

(vi)   Click Create to start defining the new database.

CREATE A DATABASE WITHOUT USING THE DATABASE WIZARD

(i)   For creating a database without wizard, you first start the Microsoft Access, a dialog box is displayed with option to create a new database or open an existing one. when this dialog box is displayed.

(ii)   Click on the Blank Access Database, and then click OK.

(iii) Specify a name and location for the database and click **Create.**

OPENING EXISTING DATABASE

(i)   Click on file button.

(ii)   Select existing document.

(iii) Click on it now your existing database will be ready to use.

EXITING MICROSOFT ACCESS

(i)   Click on File. The File menu will appear.

(ii)   Click on Exit. Access will close and you will return to the windows desktop.

(iii) Click on the close button as an alternate way to exit Access in only one step.

MULTIPLE CHOICE QUESTIONS

(i)   Microsoft Access saves the database with extension: (MTN 2022) (FSD 2022)

(a) .madb   (b) **.mdb**

(c) .msdb   (d) .msadb

(ii)   In MS, Access, table contains.   (SGD 2018)

(a) Fields   (b) **Record**

(c) Character   (d) File

(iii) **Which option in MS Access is used to create a new database from scratch?**
- **(a)** Access template
- **(b) Blank Database**
- **(c)** Existing Database
- **(d)** New Folder

(iv) **What is the means of redundancy?**
- (a) Same data saved in multiple files
- (b) Single copy of data
- (c) Duplication of data in multiple files
- **(d) Both (a) & (c)**

(v) **It makes very simple to create a database.**
- (a) Sample database
- **(b) Wizard**
- (c) Common standards
- (d) Easier programming

SHORT QUESTIONS

Q1: **What is MS-Access?** (LHR 2021) (BWP 2021) (K.B)

Ans: Microsoft Access is one of the most popular and powerful DBMS. It provides various built-in features. These features help the user to construct database and view information.

Q2: **State the use of MS-Access?** (RWP 2022) (U.B)

Ans: Microsoft Access is used to store and process a large amount of information. It is used to create queries, forms and reports easily. It allows entering, updating and reporting information.

Q3: **What is RDBMS?** (BWP 2022) (RWP 2022) (FSD 2021) (SGD 2017) (K.B)

Ans: A database management system (DBMS) that incorporates the relational-data model, normally including a Structured Query Language (SQL) application programming interface.

Q4: **Write steps exiting Microsoft access.** (MTN 2021) (A.B)

Ans:
- Click on File. The file menu will appear.
- Click on Exit. Access will close and you will return to the Windows desktop.

OR

- Click on the close button as an alternate way to exit access in only one step.

Q5: **Write down some advantages of IDE (RDBMS).** (RWP 2018) (MTN 2021)(U.B)

Ans: Following are the advantages of IDE.
- It is easy to use.
- It is simplifying the creation of database applications.
- It does not require a detailed knowledge of database.
- It provides predefined facilities to search, sort, retrieve and process data in databases.

Q6: **What is database wizards?** (LHR 2021)(K.B)

Ans: A database wizard is a set of steps that guides the user to create a database easily. It includes choosing a database template, selecting fields, making customization, adding pictures and the database.

LECTURE NO.2   **TIME: 30 MIN.**

PREVIEW OF TODAY'S TOPICS

    B.   MS-ACCESS APPLICATION WINDOW

MS-ACCESS APPLICATION WINDOW

EXTENSIVE QUESTION
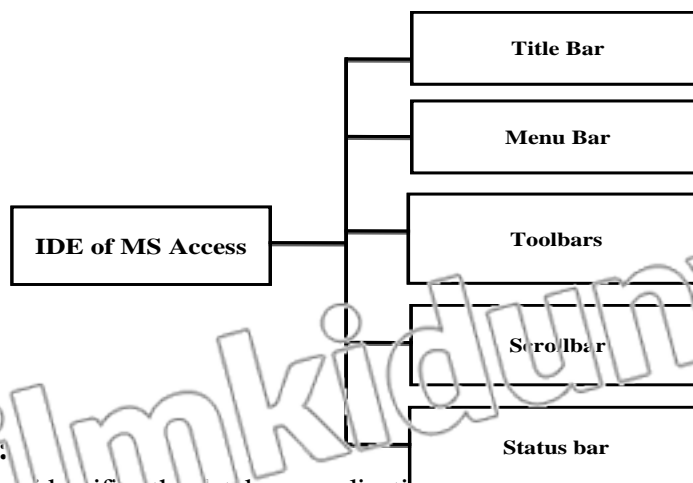
Q.1 Explain the following terms?

- **Title Bar**
- **Menu Bar**
- **Toolbar**
- **Scroll Bar**

SHORT QUESTIONS

(i)	**What is a use of Toolbar in MS-Access?**	**(SWL 2022) (U.B)**
(ii)	**What is a use of Title bar in MS-Access?**	**(MTN 2018) (U.B)**
(iii)	**What is a main idea of Scroll Bar and Status Bar?**	**(DGK 2022) (SWL 2019) (U.B)**
(iv)	**Differentiate between Toolbar and Menu Bar.**	**(FSD 2022) (U.B)**
(v)	**What is the use of database window in MS-Access?**	**(SGD 2018)(K.B)**
(vi)	**Describe any two bar of MS-Access application window.**	**(LHR 2022)**

MS-ACCESS APPLICATION WINDOW

The access application windows follow the standard layout of all Microsoft application.

```
                              ┌──────────────┐
                              │  Title Bar   │
                              └──────────────┘
                              ┌──────────────┐
                              │  Menu Bar    │
                              └──────────────┘
┌──────────────┐             ┌──────────────┐
│ IDE of MS    │─────────────│  Toolbars    │
│  Access      │             └──────────────┘
└──────────────┘             ┌──────────────┐
                              │  Scrollbar   │
                              └──────────────┘
                              ┌──────────────┐
                              │  Status bar  │
                              └──────────────┘
```

- **Title bar:**

    The title bar identifies the database application name you are running in Microsoft Access.

    (i)   On the left side of title bar, there is program control icon.

    (ii)   If you click this, a menu of the commands to control the Access windows is displayed.

    (iii)   You can also use minimize, Restore, Close buttons on the right side of the Title bar to control the MS-Access windows.

- **Menu Bar:**

    (i)   Each word on the menu bar represents a different menu.

    (ii)   Each menu contains the commands you use to active features of Access.

    (iii)   If a command is also found on a toolbar, then the icon representing the command is displayed in the menu too.

    (iv)   This makes recognizing commands easier.

- **Toolbar:**

    (i)   Toolbar contain icon button that are shortcuts to the commands in the menu.

(ii) Toolbars make it easy to use the program's most common features and functions.

(iii) The buttons on the toolbar can change depending on the objects selected.

(iv) When you click on a button on the toolbar, as you open individual table, queries, forms, and reports within that database, the toolbars change.

(v) For example, when you open a table, the table datasheet toolbar appears.

- **Scroll Bar:**

  (i) Scroll bars are used to move around the window if its contents do not fit on screen.

  (ii) You can scroll around the sheet by clicking the scroll arrows at either end of the scroll bar or by dragging the scroll button in the scroll bar.

- **Status Bar:**

  (i) The Status bar display while you are working on an object within a database.

  (ii) CAPS and NUM buttons on status bar show whether they are on or off.

DATABASE WINDOW

Database window organizes all of the objects in the database.

(i) The default table Listing provides ways to create tables and lists all of the tables in the database.

(ii) The left side of the MS-Access database window includes seven buttons, each corresponding to one of the seven objects that make up an Access database.

(iii) A database is essentially an organized collection of data.

(iv) In an Access database, you collect data into the tables by using forms, query table to analyze their content, create report based on the tables and queries, and design data access page to view your Access data from the web.

(v) As an advanced user, you may create macros.

MACRO POINT

Definition: A macro is used to perform the same sequence of steps or automating tasks repeatedly.

(i) A module contains an object that stores VBA code to create database application using Access.

MULTIPLE CHOICE QUESTIONS

1) **How many bar in MS-Access APPS-window?**
   (a) 3   (b) 4
   (c) 5   (d) 6

2) **Which of the following bar in display which you are working on an object within a database?**
   (a) Scrollbar   **(b) Status bar**
   (c) Menubar   (d) Title bar

3) **Identify the bar which used to move the window its contents don't fit on screen:**
   (a) Scrollbar   (b) Status bar
   (c) Title bar   (d) All of these

4) **Which of the following bar contains shortcut to commands in the menu bar?**
   (a) Title bar   **(b) Toolbar**
   (c) Status bar   (d) Scroll bar

SHORT QUESTIONS

Q.1 **What is a use of Toolbar in MS-Access?**   **(SWL 2022) (U.B)**

Ans: Tool bar contain shortcut button that are shortcuts to the commonly used MS Access commands. Toolbars make it easy to use the program's most common Feature and function. The icons or button of the toolbar depending on the object selected. For example, when a table is opened, the table database toolbar will appear. Similarly, when

Forms object is selected, icons on the toolbar will appear. These icons can be used to perform different operations on a Form.

Q.2 **What is a use of Title bar in MS-Access?** (MTN 2018) (U.B)

Ans: Title bar is at the top of Ms-Access application window. The name of the application (Microsoft Access) is displayed in Title bar. The left side of the Title bar contains the Program Control icon.

Q.3 **What is a main idea of Scroll Bar and Status Bar?** (DGK 2022) (SWL 2019) (U.B)

Ans: **Scroll Bar**

A bar that appears on the side or bottom of a window to control which part of a list or document is currently in the window's frame. The scroll bar makes it easy to move to any part of a file.

Status Bar

Status bar displays information while the user is working on an object with in a database. NUM shows whether the Num Lock button is on or not. CAPS shows whether Caps Lock is on or not.

Q.4 **Differentiate between Toolbar and Menu Bar.** (FSD 2022) (U.B)

Ans:

TOOL BAR	MENU BAR
• Toolbars contain different icons. These icons are shortcuts to select commands from a menu.	• Each word on Menu bar represents a different menu like File, Edit, View and Insert etc.
• Toolbars make it easy to use the program's most common features and function. The buttons on toolbar change depending on the object and view selected.	• Each menu contains commands to activate the features of MS Access.
• For example, the toolbars change when the user clicks on toolbar button and opens individual tables, queries, forms and reports in the database. Some toolbars are available for specialized tasks such as editing forms etc.	• If a command appears on toolbar, the icon representing the command is also displayed in menu. It makes recognizing commands easier.

Q.5 **Describe any two bar of MS-Access application window.** (LHR 2022)

Ans: **Scroll Bar:**

Scroll bars are used to move around the window if its contents do not fit on screen.

You can scroll around the sheet by clicking the scroll arrows at either end of the scroll bar or by dragging the scroll button in the scroll bar.

Status Bar:

The Status bar display while you are working on an object within a database.

CAPS and NUM buttons on status bar show whether they are on or off.

Q.6 **What is the use of database window in MS-Access?** (SGD 2018)(K.B)

Ans: Database window in MS-Access is used to organize all objects in database. The default table listing is used to displays all tables in current database. It is also used to create tables, forms, queries and reports.

2nd YEAR COMPUTER
REVISION LECTURE NOTES
CHAPTER NO.5
(INTRODUCTION TO MICROSOFT ACCESS)

LECTURE NO.3 **TIME: 30 MIN.**

PREVIEW OF TODAY'S TOPICS
C. Database of Objects (Table and query)

DATABASE OF OBJECTS (TABLE AND QUERY)

EXTENSIVE QUESTION

Q.1 What are database objects explain the following database objects?
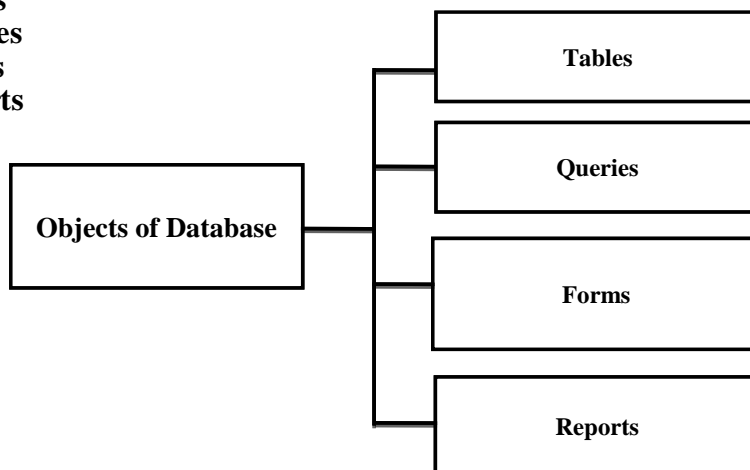
- **Table**
- **Query**

SHORT QUESTIONS

(i)	Define database objects.	(RWP 2021) (FSD 2021) (K.B)
(ii)	Why table object of a database is most important?	(MTN 2018) (U.B)
(iii)	How can you define query?	(U.B)

DATABASE OBJECTS (TABLE AND QUERY)

Definition: A MS-Access database consists of various components called the objects.

(i) The database objects are used to store data and to retrieve data from database. The major database objects are.

- **Tables**
- **Queries**
- **Forms**
- **Reports**

TABLE

Definition: "A Table is a collection of related data organized in rows and columns".

(i) The row is divided into columns called **field** containing different data values of a particular **record**.

(ii) A table having recodes of students is given blow.

(iii) **Each record contains field;** Student ID, First Name, Parents Name, Address, City, Major ID, and Class ID.

(iv) A relation database may contain multiple tables, which are identified by unique names.

(v) This is the fundamental property of a relational database Common field in tables may be Student ID, Major ID, Class ID etc.

Student ID	First Name	Last Name	Parents Name	Address	City	Major ID	Class ID
1	Ali	Azmat	Azmat Husain	345 street	Islamabad	56	1
2	Rizwan	Ali	Ali Husan	B3 Johartown	Lahore	55	2
3	Zain	Khan	Abid han	566 D	Rawalpindi	44	3

QUERIES

Definition: "Query is a statement that extracts specific information from database".

(i) It is created by specifying the fields to display from a table or another query.

(ii) It is more flexible way of selecting, filtering and sorting records.

(iii) The user can also change data in the database that fulfils certain criteria.

(iv) In addition, queries allow performing calculations of different fields.

(v) The output of a query is also displayed in the form of a table and can also be used as source of records for Forms and Reports.

(vi) The query allows you to view and analyze data in many different ways technically; a query is a stored question or request.

(vii) The difference between a datasheet for a table and a datasheet for a query is that the query's datasheet can combine information from multiple tables.

MULTIPLE CHOICE QUESTIONS

1) **A database consists of various components called:**   (LHR 2022) (GRW 2022)
    (DGK 2021, 2022) (SWL 20221)(MTN 2021)
    (a) Tools   (b) Properties
    (c) Entities   **(d) Objects**
2) **The smallest meaningful unit of data in a database is called:**   (FSD 2021) (BWP 2018)
    (a) Byte   (b) Record
    (c) Character   **(d) Field**
3) **Which of the following is NOT a database Object?**   (MTN 2018)
    (a) Table   **(b)** Query
    (c) Report   **(d) MS Word**
4) **Which object is used to store data and define structure for the data in a database?**
    (a) Table   **(b)** Query
    (c) Report   **(d)** MS Word
5) **Which of the following are object in an MS Access database?**
    (a) Tables, Forms, Queries and Reports   **(b)** Database, Datasheet and Form views
    (c) Folders and Tools   **(d)** All of above

SHORT QUESTIONS

Q.1   Define database Object?   (RWP 2021) (FSD 2021) (K.B)
Ans: A component of a database system is known as database object. MS Access provides various objects that are used to store and retrieve data from database.
- **Tables**
- **Forms**
- **Queries**
- **reports**

Q.2   How can you define query?   (U.B)
Ans: A table can be large depending on the information it holds. To further organize your data, you should be able to retrieve necessary information for a specific purpose. The solution is to create a query in order to limit part of the data in a table for a specific goal, for better managing or searching.

Q.3   Why table object of a database is most important?   (MTN 2018) (U.B)
Ans: Table store a database data in rows and columns for example, the table could store a list of customers and their addresses while another table could store the customer's orders. A database must always contain at least one table where it can store information. All the other database objects are optional.

LECTURE NO.4   **TIME: 35 MIN**

PREVIEW OF TODAY'S TOPICS
D. Database of Objects (Forms and Reports)

DATABASE OF OBJECTS (FORM AND REPORT)

Q.1 Explain the following terms.

- **Form**   • **Report**
- **table**

SHORT QUESTIONS

(i) **What is report?**   (DGK 2021) (K.B)

(ii) **Write down the uses of report.**   (LHR 2021) (SWL 2022) (MTN 2022) (U.B)

(iii) **Differentiate between form and report?**   (U.B)

FORMS   The Form object of database is used to enter data into databases, edit data and view data from database.

- **(i)** You can add, update, and delete records in your table by using a form.
- **(ii)** Form is an easy method for entering and editing data in tables. Thus the user does not have to work directly with tables.
- **(iii)** Form provide facilities to display data retrieved from database tables.
- **(iv)** Most of the DBMSs provide the facility to create Forms.
- **(v)** The application programmer creates the user interface by designing the Forms.

REPORTS

- **(i)** The Report object of database is used to retrieve and present data in a formatted way.
- **(ii)** The Report can be printed. Some reports are simply a list of the records in the database, one record after the other.
- **(iii)** Most of the popular DBMS provide this facility.
- **(iv)** The output of the query can also be given as input source to Reports.

- **The Difference between the forms and report is:**
  Following are the difference between forms and report

FORMS	REPORTS
Forms are used to enter data into database, change data and view data of database.	Reports are used to retrieve the data from database and present it on screen in a predefined format. Reports do not allow user to change data or to enter data into database.

MULTIPLE CHOICE QUESTIONS

(i) **Which of the following object is used to retrieve data from database and present in a formatted way?**   (RWP 2018)
(a) **Report**   (b) Form
(c) Table   (d) Query

(ii) **The output of the database application is:**   (SGD 2019)
(a) Form   (b) Query
(c) Macros   (d) **Report**

(iii) **A report may be based on a:**
(a) Table   (b) Query
(c) Form   (d) **Both (a) and (b)**

(iv) **Which of the following is a front end of the database?**

(a) Table	(b) Query
(c) Form	(d) Report

SHORT QUESTIONS

Q.1   What is Report?   (DGK 2021) (K.B)

Ans: Reports are the outputs of database application. Reports are used to retrieve and present data in a formatted way. The information on reports is arranged in different ways. A report may also contain graphs, charts and tables etc.

Q.2   Write down the uses of report.   (LHR 2021) (SWL 2022) (MTN 2022) (U.B)

Ans: Following are the using of report.

* Reports provide quick result from database.
* Reports help in making important decisions.
* Reports can display processed data using graphs and charts etc.
* Reports can be printed or emailed easily.

Q.3   Differentiate between form and report?

Ans: Following are the difference between forms and report

FORMS	REPORTS
Forms are used to enter data into database, change data and view data of database.	Reports are used to retrieve the data from database and present it on screen in a predefined format. Reports do not allow user to change data or to enter data into database.

STUDENTS LEARNING OBJECTIVES (SLOs)

MULTIPLE CHOICE QUESTIONS

Knowledge Based Questions

(i)   A database consists of various components called:

(a) Tools	(b) Properties
(c) Entities	**(d) Objects**

(ii)   Which object is used to store data and define structure for the data in a database?

(a) Table	(b) Query
(c) Report	(d) MS Word

(iii)   Which is an object that extracts specific information from database?

(a) Table	**(b) Query**
(c) Report	(d) All of above

(iv)   A record is a complete set of which types of fields?

(a) Distinct	**(b) Related**
(c) Designed	(d) All of above

(v)   The smallest meaningful unit of data in a database is called:

(a) Byte	(b) Record
(c) Character	**(d) Field**

Understanding Based Questions

(i)   Which option in MS Access is used to create a new database from scratch?

(a) Access template	**(b) Blank Database**
(c) Existing Database	(d) New Folder

(ii)   An example of a query is:

(a) Selection of all records that match a set of criteria.
(b) Importing of a spreadsheet files into the database.
(c) Search for a specific record.
(d) Both (a) & (c)

(iii)   A report may be based on a:

(a) Table	(b) Query
(c) Form	**(d) Both (a) & (b)**

(iv)   In Access, the structure of a table is created in which view?

(a) Design view	(b) Database view
(c) Switching view	(d) Both (a) and (b)

(v)   Which of the following is component of MS-Access application windows?

(a) Title bar   (b) Tool bar
(c) Scroll bar   **(d) All of above**

Application Based Questions

(i)   **Microsoft Access saves the database with extension:**
        (a) .mdb   (b) .msdb
        (c) .madb   (d) .msadb

(ii)   **It makes very simple to create a database:**
        (a) Sample database   **(b) Wizard**
        (c) Common standards   (d) Easier programming

(iii) **What is the default field size of a text data-type in MS-Access?**
        (a) 2   (b) 5
        (b) 20   **(d) 50**

(iv) **Which shortcut key is used to open an existing database in MS-Access?**
        (a) CTRL + N   (b) CTRL + S
        (c) CTRL + O   (d) CTRL + Z

(v)   **Which of the following represent the wizard of DBMS?**
        (a) Database Wizard   (b) Table Wizard
        (c) Form Wizard   **(d) All of above**

SHORT QUESTIONS

Knowledge Based Questions

Q.1   **What is IDE?**

Ans: IDE stands for Integrated Development Environment. It is a collection of facilities provided to the users. It is used to create databases and database applications. An IDE simplifies the tasks of creating and using a database.

Q.2   **What is Report?**

Ans: Reports are the outputs of database application. Reports are used to retrieve and present data in a formatted way. The information on reports is arranged in different ways. A report may also contain graphs, charts and tables etc.

Q.3   **What is Query?**

Ans: A table can be large depending on the information it holds. To further organize your data, you should be able to retrieve necessary information for a specific purpose. The solution is to create a query in order to limit part of the data in a table for a specific goal for better managing or searching.

Q.4   **List different data types available in MS-Access.**

Ans: MS Access provides the following data types:
- **Text**
- **Memo**
- **Number**
- **Date/Time**
- **Currency**
- **Auto Number**
- **Yes/No**
- **OLE object**
- **Hyperlink**

Q.5   **Define database Object.**

Ans: A component of a database system is known as database object. MS Access provides various objects that are used to store and retrieve data from database.
- **Tables**
- **Forms**
- **Queries**
- **reports**

Understanding Based Questions

Q.1   **Why are reports important?**

Ans: Reports are very important in making decisions. The user can send report to different

people. The output of a query can also be used as source for reports. Most of the DBMS provide the facility of reports.

Q.2   How query is written?

Ans: A query is written in database access language such as SQL. A query retrieves data from the database and displays it in the form of table. The user can also change data in the database by using queries. Queries can also be used to perform calculation on fields.

Q.3   How can you define query?

Ans: A query is a statement that extracts specific information from database. Queries one used to retrieve the required data from database. Data is retrieved according to the criteria given by the user. It is a more flexible way of selecting and sorting records.

Q.4   How data redundancy is controlled in relational data bases?

Ans: Redundancy means duplication of data in multiple files. MS-Access allows you to store, retrieve, sort, analyze, and print information contained in the database. Data may be manipulated without data redundancy by defining relationships between sets of data. Database are often used for product data.

Q.5   Differentiate between Toolbar and Menu bar?

Ans: Following are the difference between toolbar and menu bar:

TOOL BAR	MENU BAR
• Toolbars contain different icons. These icons are shortcuts to select commands from a menu.	• Each word on Menu bar represents a different menu like File, Edit, View and Insert etc.
• Toolbars make it easy to use the program's most common features and function. The buttons on toolbar change depending on the object and view selected.	• Each menu contains commands to activate the features of MS Access.
• For example, the toolbars change when the user clicks on toolbar button and opens individual tables, queries, forms and reports in the database. Some toolbars are available for specialized tasks such as editing forms etc.	• If a command appears on toolbar, the icon representing the command is also displayed in menu. It makes recognizing commands easier.

Application Based Questions

Q.1   How is Microsoft Access started or Loaded?

Ans: MS-Access can be started using different ways. The proper and common procedure to start the MS-Access is given as:

Click Stan button of Windows, Start Menu will be appeared.

Select "programs" from Start menu and then' select "Microsoft Access" from Programs menu. Microsoft Access start up dialog box will appear with different options as shown blow:

- **Blank Access database**
- **Access database wizards, pages, and projects**
- **Open an existing file**

Q.2   Write a procedure to open an existing database?

Ans: It is selected to open, an existing database, which has already been created. Select any database tile presented in the list box (or window). After selecting one of the above-mentioned options, click the "OK" button of the dialog box. The main Access window with Database window will appear as shown below.

Q.3   How to create a database using the Database Wizard?

Ans: A database wizard is a set of steps that guides the user to create a database easily. It includes choosing a database template, selecting fields, making customization, adding pictures and the database.

Q.4   How to create a database without using the Database Wizard?

Ans: If you don't want to use the database wizard, you can create a database, you first start the Microsoft Access, a dialog box is displayed with options to create a new database or open an existing one. When this dialog box is displayed, click on the Blank Access Database, and then click OK. Specify a name and location for the database and click Create.

Q.5 **List of some disadvantages of IDE?**

Ans: IDE was graphical interface. It requires more memory and processing power.

Some IDE do not allow users to interact with the database directly.