

**COURSE: Diploma in IT
ASSIGNMENT-1**

Subject: MS Access

Subject Code: A02-03

Theory Questions:

- 1) What is Database Management System (DBMS)? 1
- 2) What do you mean by data processing?
- 3) List some database applications.
- 4) What is MS-Access? How is it different from MS Excel?
- 5) What is Database?
- 6) What is the extension of Access database file? What are the objects of Access Database?
- 7) What is relational database?
- 8) What is primary key?
- 9) What do you mean by foreign key?
- 10) What are the elements of a database?
- 11) Define the following:
 - a. table
 - b. field
 - c. record
 - d. query
- 12) What are the differences between a form and a report?
- 13) What is a macro?
- 14) What are the ten field types in Access?
- 15) What are the front-end and back-end components of a database?
- 16) What is the meaning of following field properties?

Field Size, Format, Input Mask, Caption, Decimal Places, Default Value,
Validation Rule, Validation Text, Required, Allow Zero Length, Indexed
- 17) What is datasheet view? Define sub-form.
- 18) Define: *entity, attributes & relationships* in RDBMS.
- 19) What are the different ways to add a table in Access database?
- 20) What do you mean by default value for a field in Access table?
- 21) What do the following formatting symbols mean in Format properties of fields?

- a) <
 - b) >
 - c) @"NULL"
 - d) @"Not entered"
 - e) \$
- 22) What is 'Input Mask' field property?
- 23) How can you import a table created in another database or other file formats in MS access?
- 24) What are the ways to create a new form in access?
- 25) How can you show only selected records with a form? What is the difference between using a filter and a query to find records?

Practical Questions:

- 1) Create a database file, which will require you to create one table, one query, one form, and one report.

Create table: CUSTOMERS

Create the field names and their properties as you need them to store your specific data for customers. You will have at least five customers with their information included in your customer table.

CUSTOMERS Table Field Names:

Customer ID (Primary Key: CID)

First Name (FNAME)

Last Name (LNAME)

City (CITY)

State (STATE)

Number of Purchases (PNUMBER)

Total Amount of Purchases (PTOTAL)

Date of Last of Purchase (PLAST)

Create query: NY Customers

Create a query that displays only the NY customers sorted by last name in ascending order.

Create report: NY Customers Report

Create a report from the NY Customers query.

Create form: New Customers

Create a form for the Customers table. Include all fields in the form. Use the Form Wizard to create a form. Using the New Customers form, enter two additional customers:
 Marion Morrison New Paltz NY 3 \$150.00 March 12, 2010
 Adam Jones Kingston RI 2 \$250.00 March 17, 2010

2) Using Microsoft Access, define a database called **Student Advising** consisting of two tables: **Students** and **Faculty**.

The Student table has the following fields with the following properties:

- **Student ID** - data type is Text, field size is 4 and Caption is ID #. It is also the **primary key**.
- **Last Name** is Text, field size is 15
- **First Name** is Text, field size is 15
- **Major** is Text, field size is 30
- **Advisor ID** is Text, field size is 4
- **Credits** is Number and its field size is **Integer**

The Faculty table has the following fields with the following properties:

- **Faculty ID** - is Text, the field size is 4, the Caption is Fac. ID and it is the primary key.
- **Last Name** - is Text and the field size is 15
- **First Name** is Text, field size is 15
- **Office Phone** is Text, field size is 4 and the Caption is Phone

Create two queries for **Student**.

- i. One that lists every students' First Name, Last Name, Major and Credits (in that order).
- ii. The second query will list the First Name, Last Name, Credits for every student whose advisor's ID is **2222**.

The Database

Student

Student ID	Last Name	First Name	Major	Advisor ID	Credits
1111	Smith	John	Chemistry	2222	23
1122	Jones	Thomas	Music	3333	45
2244	Siegfried	Robert	Computer Sc.	4444	30
3344	Goldberg	Stephen	Chemistry	2222	32

4455	Wayne	Anthony	History	5555	24
4455	Kent	Clark	English	6666	38

Faculty

Faculty ID	Last Name	First Name	Office Phone
2222	Curie	Pierre	2345
3333	Copland	Aaronx	4567
4444	Hooper	Grace	5678
5555	Kelly	Patrick	6789
6666	Ash	Craig	2234

3) Your new job is assistant to the manager of the Noiseworks Music Agency. The agency books bands for various functions and the manager has asked you to maintain the list of bands for which the company handles bookings. This is a sample of the information to be kept:

BAND NAME	MEMBERS	PRICE	MUSIC TYPE	NOTES
High In Dry	4	500	Rock & Roll	Weddings, Balls, Dances Preferred
Square Dance Trio	3	650	Country & Western	Prefers C&W Gigs And Concerts Suitable For Weddings,
Blue Sox Quartet	4	400	Jazz	Jazz Festivals, Dances. Prefers Smaller Gigs.
Young And Proud	5	750	Rock & Roll	Young Band, Suits Concerts And School Functions
Matthe	3	750	Rock &	A Young Band, Prefers Gigs

w And Son			Roll	With A Younger Audience
Cruising	5	500	Jazz	Suitable For Older Audiences, Has A Good Repertoire Of Older Dance Numbers
Northern Lights	4	750	Rock & Roll	Suits An Older Audience, Plays Older Rock Songs
Country Charm	5	650	Country & Western	A Good All Round Band With A Preference For C&W

- a) Create a database file called Bands and a table called NOISEWRKS within the file, to contain the information above.
- b) Enter the data for the bands.
- c) Add one more band to your file:
 - a. Flying Colours, 5 members costing \$800. The band plays jazz and the notes in the file indicate that the band is suitable for dances and mature audiences.
- d) Make these changes to the data in your file:
 - a. Blue Sox Quartet has increased its price to \$550.
 - b. Cruising has increased its price to \$700.
- e) Matthew and Son has split up. Remove details of this band from the file.
- f) List only the band names and the notes. Save the Query
- g) List all the bands that play jazz. Save the Query
- h) List all the Rock & Roll bands that cost less than \$700. Save the Query.

4) In database of question 3:

- a) List all the band names and the price for bands which play Country & Western. Save the Query.
- b) List all the bands which play either Rock & Roll or jazz. Save the Query.
- c) How many bands cost more than \$650? Save the query
- d) What is the average number of members in the jazz bands? Save the Query.
- e) Create and print a report for your file. Include in your report the band name, the price and the notes kept on each band, grouped by music type. Add your name, the

assignment number, question number and date to the bottom right corner of the report.
Format the report professionally on the page.

5)

(a) Create a table in MS-Access with database name 'Emp' with following fields –

Emp_ID (Number), Emp_Name (Text), DOB (Date)

(b) Insert the following data in the above table:

Emp_ID	Emp_Name	DOB
238	ABC	15-03-1975
235	XYZ	10-04-1980
236	PQR	23-11-1970

(c) Insert a new column with name Gender(Text) before DOB with row-wise data M, M and F.

(d) Sort the above table in descending order with respect to field 'Emp_ID'.

(e) Delete the row with Emp_ID = 235.

6)

(a) Create a table in MS-Access with database name 'Population' with following fields –

NPR_ID (Number), Name (Text), DOB (Date), Gender(Text)

(b) Insert the following data in the above table:

NPR_ID	Name	DOB	Gender
3231234	AB	15-04-1971	M
2354317	XY	15-05-1984	F
2367542	PQ	21-12-1974	M

(c) Insert a new column with name SN (Number) before the column NPR_ID with row-wise values 1,2, and 3.

(d) Sort the above table with respect to field NPR_ID in ascending order.

(e) Perform the operation Rename to change the column name DOB to D_O_B.

7)

(a) Create a table in MS-Access with database name 'ReportCard' with following fields –

S_Name (Text), Phy (Number), Chem (Number), DOB (Date)

(b) Insert the following data in the above table:

S_Name	Phy	Chem	DOB
AAB	51	67	25-05-1988
BBG	62	59	12-12-1978
CCH	73	66	06-06-1977

(c) Find out sum of 'Phy' and 'Chem' marks by using MS-Access feature.

(d) Sort the above table with respect to field 'S_Name' in descending order.

(e) Change the contents of the field DOB (Date) to DOB (Date-Long date Format).

8) Create a table using following field and make a suitable primary key

Field (Data Type) Size

EmpID (Number)

EmpName (Text) 30

Address (Text) 50

Phone Number (Number)

EmailAddress (Text) 40

- a) Insert any 5 record to the given table
- b) Create a query to sort EmpName in ascending order
- c) Create suitable report for the records you entered.

9) Create a Table called **Publisher** having the following structure:

Field Name	Data Type
PubID	Short Text
PubName	Short Text
URL	Hyperlink

- a) Set the field PubID as the primary key.
- b) Set the Field Size field property of the field PubID to 5.
- c) Set the Field Size field property of the field PubName to 50.
- d) Set the caption property of the PubID field to Publisher ID.
- e) Set the caption property of the PubName field to Publisher's Name.

Enter the following data for the **Publisher** table:

PubID	PubName	URL
MH	McGraw-Hill	http://www.mhhe.com
PH	Prentice Hall	http://www.prenhall.com
WI	Wiley	http://www.wiley.com
EL	Elsevier	http://www.elsevierdirect.com
AW	Addison Wesley	http://www.aw.com
MP	MIT Press	http://mitpress.mit.edu
CL	Cengage Learning	http://cengage.com

10) Using tables in question No. 9, Create a Report. Use the Report Wizard to create a report having the following requirements:

- a) Select the LastName field from the Author table.
- b) Select the Title and Price fields from the Book table.
- c) Select the PubName field from the Publisher table.

- d) View the data by Publisher.
- e) Add a grouping level using LastName.
- f) Sort the report by the Title field in ascending order.
- g) Choose Stepped layout and Portrait orientation.
- h) Type Book List as the report's title.
- i) Switch to Layout view and adjust each column's width as necessary.