

Lesson = 1 Web Basics

I = Tick the Correct Answer :-

1) A static website may consist of plain text or _____

- a) Rich text (✓)
b) Formatted text
c) Graphics
d) None of these

2) A dynamic website's content is renewed every time _____

- a) A user open a website
b) A user download something
c) A user visits the website (✓)
d) None of these

3) A web portal is a _____ that includes information from different sources in a consistent and uniformed manner.

- a) Website
b) Customized website (✓)
c) Server
d) None of these

4) Web portals are sometimes classified as _____ or _____

- a) Horizontal
b) Horizontal or Vertical (✓)
c) Vertical
d) None of these

(2)

5) At the end of dot-com boom in the

- a) 1990 (✓)
b) 1999
c) 1980
d) None of these

II Fill in the blanks:—

- 1) A website is a collection of interlinked web pages.
- 2) Each website can be accessed through an address is called Uniform Resource Locator.
- 3) Dynamic web pages can be created using wide range of software & languages.
- 4) gov.uk is type of portal is from country United Kingdom.
- 5) Applet is a small program used in plug in.

III Match the following:—

- | | | |
|---|---------------------|---|
| 1 | A horizontal portal | A - Vertical information portals (3) |
| 2 | Vertical | B - Personal portals (4) |
| 3 | VIP | C - A platform to several companies (1) |
| 4 | Social Network | D - Vertical (2) |
| 5 | Plug in | E - Applet (5) |

(3)

IV = Write Full-forms :-

- 1) JSP = Java Server Page.
- 2) URL = Uniform Resource Locator
- 3) API = Application Programming Interface
- 4) ASP = Active Server Page.
- 5) PDA = Personal Digital Assistant.

V = Answer the following in short :-

1) What is an applet?

Ans = An applet is a small application that performs one specific task in a large program.

2) Is web scrapping and web harvesting the same thing?

Ans = Yes.

3) What is a web page?

Ans = A web page is a document which is written in HTML and translated by web browser for user over Network, to interact.

4) What is horizontal portal?

(4)

ans: A horizontal portal is a platform used by several same kind of user like economic sector, manufacturers, distributors etc.

5) What is PDA?

ans: PDA (Personal digital assistant) is a variety of mobile device which functions as a personal information manager.

6) Write four different types of Portals?

ans: Four different types of Portals are as follows:-

- 1) Corporate Portal
- 2) Cultural Portal
- 3) Stock Portal
- 4) Property Search Portal.

VII = Answer the following in long:-

1) What is website and a web page?

ans: A website is a collection of webpages. All the pages are interlinked hosted from single domain. It is of two types -

→ Static

→ Dynamic.

Where as, a web page is a document

4 a part of web site which is written in HTML (Hyper Text Markup Language). Each web page has a link to get connected from one page to another in form of text or image.

2) Explain the Categories of Portal.

ans -> Web portals are Categories as follows

→ Horizontal

A horizontal Portal is used as a platform to several companies in the same economic sector or to the same type of manufacturers or distributors.

→ Vertical

It is also known as 'Vertical', is an entry point to specific market or industry. It provide news, editorial content, digital publications and e-commerce capabilities.

3) What is an Interactive Website?

ans -> With the evolution of multimedia and other design elements, images, audio, video and interactivity to mimic a desktop application started to appear on

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Websites. A website having above features and allow it's user to communicate & interact with it is called an Interactive Website.

On these type websites visitor can post their replies and comment to communicate with the person behind the website to get solutions for their query.

4) Explain Vertical Information Portals.

ans: Vertical Information Portals (VIPs) provide news, editorial content, digital publications & e-commerce capabilities.

It provides information & resources for particular industry in form of news, research, statistics, discussion, online tools and many more services that educate user about that specific industry.

5) What is web Portal?

ans: A web portal word refers to 'entry gate'. Web portal is a group of websites.

It is a customized website, itself to provide information and services to users. Content of portal arranged according to requirements of end user. There are many types of web portals depending on the

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Usage, like

- 1) Government Portal
- 2) Cultural & trade Portal
- 3) Stock & Financial Portal
- 4) Tenders & bidding Portal etc.

It is a private location with unique URL. Its features are as follows -

- 1) Personal login is required
- 2) Only portal members can see the content
- 3) Dynamic content changes more frequently
- 4) Communication features with other portal members or groups.

5) Write the names of different government web portals.

ans - Examples of Government web portals are as follows -

- 1) Australia . gov . au for Australia
- 2) USA . gov for United states.
- 3) India . gov . in for India
- 4) gov . lk for Sri Lanka
- 5) Disability . gov for citizens with disabilities in US.

Lesson = 2

RDBMS : Relational Database Management System

I = Tick the correct answer :-

1 = A Relational database management system is full form of _____

- a = RDBMS (✓)
- b = LDBMS
- c = NDMS
- d = None of these

2 = Microsoft Access is a database and, more specifically it is _____

- a = A software
- b = A Relational database (✓)
- c = A package
- d = None of these

3 = MS-Access 2007, the file extension was _____

- a = *.mdb (✓)
- b = *.accdb
- c = *.*.mdb
- d = None of these

4 = MS Access provides features like _____

- a = Data definition
- b = Data Control
- c = Data manipulation
- d = All the above (✓)

5 = Database in Access are composed of _____ objects

- a = Query
- b = Form
- c = Report
- d = All of above (✓)

II. Fill in the blanks -

1. Full form of RDBMS is Relational Database management System.

2. The extension of the MS-Access is *.accdb.

3. Table is an object that is used to define and store data.

4. Query provides Custom view of data from one or more tables.

5. Report is an object for formatting, calculating, providing and summarizing selected data.

III. Match the following -

1. Data Definition A. Unique data (4)

2. Data Manipulation B. Custom View (5)

3. Data Control C. Organize data (3)

4. Primary Key D. Change in data (2)

5. Query E. Kind of data (1)

IV = Define the following :-

- ① Table = Table is an object, made up of rows & columns to define & store data.
- ② Query = Query is an object which provides custom view of data. It is a request of data from table or combination of tables.
- ③ Report = Report is an object designed for formatting, calculating, printing and summarizing selected data.
- ④ Form = Form is an object in database which is designed for data input means for entering, modifying and viewing records.
- ⑤ RDBMS = RDBMS is a database management system that is based on relational model.

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V. Answer the following questions:-

1. What are database objects? What are the objects present in a database?

Ans: Database uses objects to help the user list and organize information, as well as prepare reports. Objects allow user to enter, store, analyze and compile data. Database offers user many object like -

Forms, Reports, Macros, Modules, Tables, Queries, etc.

2. Explain the term data definition.

Ans: Data definition mean to define data as kind of data. It is a feature of RDBMS which allows user to define rule to ensure integrity of data, to create, change & remove objects like table, views etc.

3. What is data manipulation? Explain it.

Ans: Data Manipulation is a feature of RDBMS. It is a process of changing data to make it easier to read or to be more organized. User can search a single table for information or can request a complex search related to

Several tables. Updation or manipulation of a single field or many records is possible with a single command.

4.2 Explain data control.

Ans: Data control is a process of governing and managing data. It is a type of internal control to achieve data management objectives. It controls over unauthorized access, adequate backup of data & data integrity.

5.2 What is RDBMS?

Ans: RDBMS stands for Relational Database management system. It is based on relational model. It refers to a database that stores data in structured format using row & column. ~~That makes~~
Rows are called records and columns are known as attributes. Each table has a unique key that identifies each row called primary key.

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This Concept was invented by E.F. Codd in 1970. RDBMS has following features

- 1) Data Definition
- 2) Data Manipulation
- 3) Data Control

It is composed of many objects which help user to organise information. following are the major objects

- 1) Table
- 2) Queries
- 3) Forms
- 4) Reports

User creates a database and make relations between them with the help of unique id. After creation one can store data in it manipulate it & control it to fetch required information.

RDBMS gives flexibility to allow multiple sharing of data

II: Fill in the blanks:-

- 1) A table is a set of Row and Column.
- 2) A Primary Key is a combination of fields.
- 3) In text data type we can store upto 255 character.
- 4) We can store 64,000 characters in Memo data type.
- 5) A Primary Key field is a field that uniquely identifies a record.

III: Match the following :-

- | | |
|---------------|-------------------------------|
| 1 Table | A = Record (2) |
| 2 Row | B = Field (3) |
| 3 Column | C = Data type (4) |
| 4 Currency | D = A type of view (5) |
| 5 Pivot Table | E = Set of row and column (1) |

Q2 Write process for the following:-

1. To make a table in MS-Access in Design View -

- ⇒ ① Activate the Create tab.
- ② Click Table design in Tables group.
- ③ Type the first field name.
- ④ Press Tab Key.
- ⑤ Click on down arrow & select a datatype from the list.
- ⑥ Click Primary key to create primary key. A small key appears.
- ⑦ Press Tab Key.
- ⑧ Type the description (optional).
- ⑨ Press Tab Key (moves to another field name).
- ⑩ Repeat step 3 to 10 to create more fields.

2. To Sort the table data in ascending order. -

- ⇒ ① Click the down arrow and then select the field you want to sort by.
- ② Click to select a sort direction (the button toggles between ascending and descending). upto four levels.
- ③ Click Next. The Look-up wizard moves to the next page.

V = Answer the following questions in short:-

1) What is a table in MS-access?

ans: Table is a set of row & Column to store data in MS-access.

2) What is Column in MS-access?

ans: A Column in MS-access is called a field.

3) What is Record?

ans: Each row in a table is called a Record.

4) What is Primary Key?

ans: A Primary key is a field or combination of fields that uniquely identify each record in a table.

5) What is sorting?

ans: To arrange data in order either ascending (A to Z) / (lowest to highest) or descending (Z to A) / (highest to lowest) is called sorting.


V- Answer the Questions in Long

1) How to Set a Primary Key in a table?

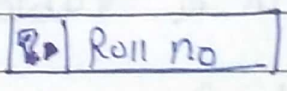
Ans- To Set a primary key, we have to follow these steps -

→ Select the field that we want to use as a primary key.

→ Go on Design tab, in Tool group

→ Click on primary key  Button.

→ A small key will appear next to that field name.



2) What are the properties of a table?

Ans- Tables are the key objects as they contain the data that is stored in the database. The properties of table are

1) Table is made up of Rows & Columns.

2) Each ~~field~~ row is called record & each column is called field.

3) Each field must be given a name

4) No two fields have the same name

Students		
Rollno	Name	Class
1	A	V
2	B	VI
3	C	VII

← Table name
 ← Fields (Col.)
 ← Records (Row)

3) How to adjust a Column width in MS-access table?

Ans: To adjust Column width follow these steps—

→ Deselect the Hide Key Column

→ Adjust the Column width by dragging or double-clicking the right vertical border for Column.

→ Click Next

4) How to create a look-up column?

Ans: To create look-up Column we should open lookUp wizard. The steps are as follows—

1 → open the table to which you want to add a look up Column.

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2. Click the field label for the field before which you want to add a lookup column.

3. Activate the datasheet tab.

4. Click the lookup column button in the fields & column group. The lookup wizard appears.

5. Make sure the radio button next to "I want the look-up column to look up the value in a table or query" is selected.

6. Click Next.

(The lookup wizard moves to next pages)

5) How to select a table for query?

Ans: To select table for query, follow these steps:

1. Click a radio button to select what you want to base your look-up column on

2. Choose

<input checked="" type="radio"/> Table
<input type="radio"/> Query
<input type="radio"/> Both

4. Click

32 Click Next (Look up Column moves to the next page)

— x — x —

Lesson = 4

Spread sheet MS-Excel 2010

A2 Tick the Correct Answer
I= RAND BETWEEN a function generates a Random Value between

- a) Two Value
- b) Specified Range of Value (✓)
- c) More than two value
- d) None of these.

II= PROPER is a type of

- a) Text function (✓)
- b) Numeric function
- c) Alpha numeric
- d) None of these.

III= CONCATENATE is a function to

- a) Add two Value
- b) Join two cells
- c) Combine two cells
- d) All of these (✓)

IV= IF() is a type of

- a) logical function (✓)
- b) Mathematical function
- c) String function
- d) Boolean function

If the Statement is true it return one value and if it is false then it will return another value

Ex: If (Total Marks >= 33)

True → Pass
or False → Fail.

2 = MID() = It is a function which is helpful to extract a portion of longer string, from between.

Ex: A/c no. = 103630000103000

MID(A2, 5, 5) → identifies no. of digits to extract.
↓ represent 5th digit
Cell Address i.e. = 3 (Tooltip)

3 = Concatenate() = It is helpful to combine information of separate cells into one.

Ex: 1 | Last - Name | B1 | First Name.
2 | Smith | C1 | John

Concatenate (B2, A2) = John Smith

4 = PROPER () = This function returns text values in a cell with each of the first word capitalized.

5 = Datedif () = This function calculates the interval between two dates.

D// Match the following! -

(A)

(B)

1 = Mid ()

A = Formula (5)

2 = Upper ()

B = To change no. without decimal (4)

3 = Dateif ()

C = To express middle from no. at text (1)

4 = Round ()

D = To convert into Capital letter (2)

5 = = A1 + A2

E = Condition on date (3)

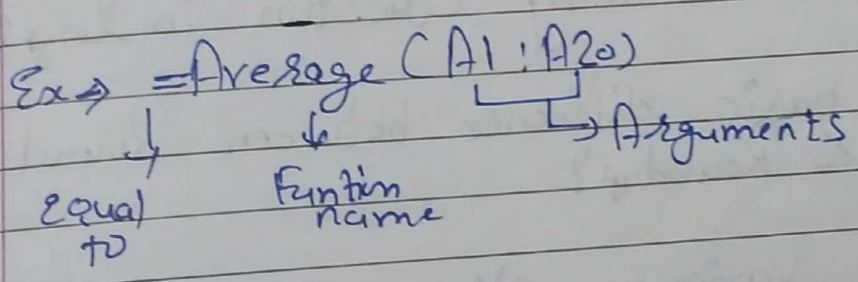
E/ Answer the following in short:-

Q1 = How the formula is different from functions?

Ans = The formula is a user defined calculation while function is built-in calculation

Q2 = What is basic syntax of a formula?

Ans = The basic syntax of a formula is
 = (equal to), Function name and argument.



Q3 = Write two trigonometric functions!

Ans = ACOS, ASIN

Q4 = Explain lower & upper function:

Ans = Lower function returns text value in a cell in all lower case while upper case returns (Capital letters)

Q5: Write the difference between left, Right & Mid functions.

Ans: These functions are helpful to extract a portion of larger string.

left is used for taking some portion of data from left side of text, right function extract from right side while Mid function extract from middle of the string.

~~E~~ Answer the following question in long

Q1: Explain the basic difference between Round, Rounddown, & Roundup?

Ans: There are various options with rounding. User can choose any one depending on the need. These options are —

- Round
- Rounddown
- Round up.

'ROUND' function help users to round any decimal no. to the nearest value.

'ROUND DOWN' helps users to round values down to the nearest value based on the desired place or integer.

While 'ROUNDUP' function help users to round values up to the nearest value based on the desired decimal place or integer

Ex. No.	Formula	Result
1.6666667	= ROUND (A2, 2)	1.67
1.6666667	= ROUNDDOWN (A3, 1)	1.6
1.666667	= ROUNDUP (A4, 0)	2

Q2 = Explain statistical function.

Ans: Statistical functions are used to apply a mathematical process to a group of cell in a worksheet. Excel provides an extensive range of statistical functions, that perform calculations. These are grouped into categories to help user to easily find function he need. They are as follows.

Count & frequency —

COUNT	COUNTIF
COUNTA	COUNTIFB
COUNTBLANK	FREQUENCY.

Percentile, Quastiles & Rank:—

Percentile	RANK
Quastile	

AVERAGEST	Average	AverageA
	AverageIF	MODE
		MINI

4 many more...

Q32 Explain date & time function.

Ans2 It is a function which is used to display date or to calculate the duration from one date to another.

DATE= This function is used to display information related to year, month & date in separate cells.

YEAR, MONTH & DAY= These functions are helpful to capture the appropriate piece of information in date cell.

WEEKDAY= This function returns the day of week for a given date.

DATEIF= This function calculates the interval between two dates.

Q4= Explain lower and upper function.

Ans2 To make clean table & charts or our worksheet formatting is required. Formatting can be issue when exporting data. This formatting is applied on text of cell or multiple cells. We use following function to apply formatting over text —

①
Lesson 5

Programming with C++

I Tick (✓) the Correct Answer :-

1. The Variable is a _____

a = Named location

c = Character to store value

b = Portion of memory (✓)

d = None of these

2. Double is a type of datatype having _____

a = Integer Value

c = Double Precision

float Value (✓)

b = Float Value

d = None of these

3. Float $b = 25.74$ is an example of _____

a = Assigning values to a variable

c = Define first value

b = Initialization of variable (✓)

d = None of these

4. String is a type of _____

a = longer than single character (✓)

b = Combination of characters

c = a English words.

d = None of these

②

52 The fixed value expression is

- a2 Constants (✓)
- b2 Literals
- c2 Variable
- d2 None of these.

II2 Fill in the blanks:

12 Constant lines will start through #define symbol.

22 sign # is the directive for the preprocessor.

32 cout represents the standard output stream.

42 The main body of the program is enclosed in braces {}.

52 Comments in C++ are of two types.

III2 Find the errors in the following statements

a2 a int + int b;

=> Declaration is wrong
int a;
int b;
or int a, b;

3

b2 cout "My name is Raj",

=> cout << "My name is Raj" ;

c2. int a=10;

=> int a=10;

d2. cout << a=10;

=> cout << a;

e2. include <iostream>

=> #include <iostream>

IV- Find the output of following statements.

a2 cout << "area=" << "24";

O/P2. area = 24

b2 cout << "area = 500";

O/P2. area = 500

c2 int a = 500
cout << a * 10;

O/P = (500 * 10) = 5000

(4)

d = cout << 12 % 2 << "Modulus";

o/p = 0 "Modulus"

e = a = 500
b = 200

cout << "addition = " << a + b;
cout << "In Multiply = " << a * b;

o/p = addition = 700
Multiply = 1,00,000

V = Answer the following questions in lang:

1 = What is C++?

ans = C++ is a high-level programming language developed by Bjarne Stroustrup at Bell labs in 1979. C++ add oops features to predecessor C. oops means object oriented programming. It runs on variety of platforms such as windows, Mac os, etc. This language is very close to hardware.

C++ has variety of functions that together perform a task. C++ Standard library provide numerous built-in function

It is fastest programming language because its generated codes are very compact and executes very quickly.

(5)

2- What is Comment? What is the uses of it in C++?

ans= Comments are portions of code that are ignored by compiler. Comments are written in block form or as a single line start with // and continue until the end of line. The purpose to give comment is only to allow the programmer to insert notes or descriptions embedded within source code.

C++ support two ways to insert comments :-

1 -> // line comment

2 -> /* block comment */

Without using comment characters //, * the compiler will take comment as C++ expression.

3- What is data types in C++?

ans= Data type ~~means~~ shows the various type of data. Information is stored in ~~computer~~ computer memory with different data types. whenever a variable is declared it is necessary to define its type which shows that which type of

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data a variable can hold. The basic fundamental data types in C++ are

- char
- int
- bool
- float
- Double
- long double

All datatype have their different Range & occupy different size in Computer's memory.

Q = How to define a initial value in C++?

Ans = To define initial value in C++ there are two ways to do it

The first one known as C-like is done by appending an equal sign followed by the value to which the variable will be initialized

```
Ex 2 type identifier = initial value;  
int a = 0;
```

The another ~~method~~ way to initialize variables, known as Constructor initialization,

```
type identifier (initial value);  
Ex 2 int a (0);
```

7

Both the ways of initializing variable are valid & equivalent in C++
Initialization is the assignment of an initial value for a data object/variable.

Q: Write about #include <iostream.h>?

ans: iostream.h is a header file which contains all the functions of program like cin, cout etc. while #include tells the preprocessor to include the header files in program. It is mostly written at the beginning of any C++ program.