Computer Part-7

Chapter-1 Introduction of Computers

Oral Skills

1. Do it yourself

Writing Skills

Multiple Choice Questions:

2. **Tick (✓) the correct option:**

a) b) both (a) and (c)

b) a) software

c) c) keyboard

3. **Fill in the blanks:**

a) Input is known as raw information.

b) Processing is said to be the operation of data.

c) Output is the processed data given by computer after data processing.

d) All physical parts of the computer are called hardware.

4. **Answer the following questions:**

a) The Scanner enables us to create an electronic form of printed image. Scanner does is by shining a light on the image. After image is scanned and transferred to computer memory, the same can be modified as per requirement. We can use Scanner to stock photograph on computer or transfer a picture from a book into your presentation.

b) QWERTY is a keyboard which was invented by Christopher Latham Sholes in 1875. It contains 104 keys.

c) The Input Devices accept inputs in several forms from the user and change it into understandable machine form. Input Devices are: Keyboard, Mouse, Scanner, Bar Code Reade, Joystic and Micro-Phone.

d) By Mouse, we mean a point device. It is used in a graphic environment like Windows Operating System. It performs commands/instructions by clicking on options, menus and icons. It contains 2-3 buttons.

e) Input Unit is formed by Input Devices attached with the computer. Input Devices accept inputs in several forms from the user and change it into understandable machine form. Input Devices are: Keyboard, Mouse, Scanner, Bar Code Reade, Joystic and Micro-Phone.

f) The correlation between Light Pen and Touch Pad is as follows:

Light Pen : It is known as a pointing device sensitive to light and looks like a pen. It ensures input moving directly on computer screen. It sends signals to CPU which processes and carries out the instructions.

Touch Pad : It is known as a device to point (controlling input positioning) on computer screen. It is an alternative to mouse. It is also made for use with desktop computers. It works by sensing the user's finger and movement.

Lab Activity:

Do it yourself

Chapter-2 Microsoft Window - 7

Oral Skills

1. Do it yourself

Writing Skills

Multiple Choice Questions:

2. **Tick (✓) the correct option:**

a) iii) both b) c) Windows

c) iii) Copy d) a) Yes

3. **Fill in the blanks:**

a) We can open Windows Explorer directly from right clicking Start Button and then Clicking on Open Windows Explorer.

b) The Left Pane shows the Personalize and Desktop Icons.

c) The Copy Option is utilized to copy a folder.

d) The Back and Forward buttons are available on the Toolbar.

4. **Answer the following questions:**

a) By Windows Explorer, we mean navigation through Windows 7 folders and libraries,

preview content details and use keywords to search for specific documents. To get to Windows Explorer:

- ❖ Click on Start button – All programs – Accessories – Windows. OR
- ❖ Right click Start button. Click on Open Windows Explorer.

b) The various "Group by" options available to arrange the contents of a Folder/Drive are as follows:

It organizes Files and Folders by breaking them into different sections as follows:

1. **Name** : It organizes Files and Folders in alphabetical order by their names.
2. **Date modified** : It arranges icon in order or modification date.
3. **Type** : It organizes Files and Folders according to File type.
4. **Size** : It organizes Files and Folders in order of their file size.

c) CD Burning means to copy or write information on to a Compact Disk :

d) We use Documents Library to arrange and organize word-processing documents, presentations, spreadsheets and other text-related files.

- ❖ Click Start button
- ❖ Click Documents.

We view a Window and its various parts help us navigate or work with files, folders and libraries.

e) We can make Keyboard easier to use by adjusting settings on Make Keyboard Easier to Use page in Ease of Access Center.

Step 1 : Click Start to Open Make Keyboard Easier to use page
- ❖ Click Control Panel, Click Ease of Access, Click Ease of Access Center, Click Make Keyboard Easier to use.

Step 2 : Turn on Mouse Keys to run Mouse keys if you log on to Windows.

- ❖ Turn on Sticky Keys: It sets Sticky Keys to run.
- ❖ Turn on Toggle Keys: It plays an alert every time you press Caps Lock, Num Lock or Scroll Lock keys.
- ❖ Turn on Filter Keys to enable them to run.
- ❖ Underline Keyboard Shortcuts & Access Keys to allows access in Dialog boxes easier by highlighting access keys for control in them.
- ❖ Present Windows bring automatically arranged when moved to edge of Screen.

f) The various viewing options available to view contents of a File/Folder are:

- ❖ Click the Start button and then click Computer.
- ❖ Click a Drive to select it.
- ❖ Review the Drive details in Details Pane.
- ❖ Double Click Drive to open it.
- ❖ Click Back or Forward button to Toolbar to move or return to a previously visited Window.
- ❖ Click on Close button, if you are done.

Lab Activity:
Do it yourself

Chapter-3 Number System

Oral Skills

1. Do it yourself

Writing Skills

Multiple Choice Questions:

2. **Tick (✓) the correct option:**
   a) a) Binary
   b) c) number language
   c) c) Digital Computer
   d) a) 2

3. **Fill in the blanks**
   a) The base of Binary System is 2.
   b) The base of Hexadecimal System is 10.
   c) Actual Number System consists of 2 digits.
   d) In Binary Addition, 1 + 1 equals to 10.

4. Answer the following questions:

a) Actual Number System consists of 2 digits: '0' and '1'. This is also known as Base-2 Number System, because each position in the number represents an increasing number with a base of 2. This number system is called Binary Number System.

b) The rules to multiply two Binary Numbers is as follows:

$0 \times 0 = 0$

$0 \times 1 = 0$

$1 \times 0 = 0$

$1 \times 1 = 1$. And no carry or borrow bits.

Since Binary works in Base 2, it involves 0 and only. We take example of binary multiplication of 101 times 11 i.e.

```
    101
  x  11
  ____
```

We multiply 101 by 1 and get 101. We place 0 as a placeholder as we would in decimal multiplication and multiply 101 by 1 which gives 101.

```
    101
  x  11
    101
   1010   <-- 0 here is placeholder
   1111
```

The next step is to add. Results from earlier step shows we must add 101 and 1010, the sum of which 1111.

Thus $(101)_2 * (11)_2 = (1111)_2$

c) The Hexadecimal digits are base-16 number system, because every position in number represents an increasing number with a base of 16.

They look same as Decimal Numbers upto 9, but there are letters ("A", "B", "C", 'D', "E", "F") in place of decimal numbers 10 to 15.

A single Hexadecimal digit can show 16 different values instead of normal 10 as following:

Decimal   0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Hexadecima 0 1 2 3 4 5 6 7 8 9 A B C D E F

d) The steps to change a Binary Number into Decimal Number are:

❖ Multiply each binary number with 2 having he power 0 for unitary position, starting from extreme right digit.

❖ Increase power one by one, keeping the base constant as 2.

❖ Add all products to obtain the decimal number.

Example:

Change from binary to decimal: $111101_{(2)} = ?_{(10)}$

111101

$= 1 \times 2^0 + 0 \times 2^1 + 1 \times 2^2 + 1 \times 2^3 + 1 \times 2^4 + 1 \times 2^5$

$= 1 + 0 + 4 + 8 + 16 + 32$

$= 61_{(10)}$

e) To change a decimal number to Binary, we will follow do as follows:

To convert a decimal number to binary, first subtract largest possible power of 2 and keep on subtracting the next largest possible power from remainder, marking 1s in each column where this is possible and 0s where it is not.

Example: (Convert Decimal 44 to Binary) or $(44_{(10)} \text{ to } ?_{(2)})$

```
    44
  - 32
  ____
    12
  -  8
  ____
     4
  -  4
  ____
     0
```

32	18	8	4	2	1
1	0	1	1	0	0

Thus $(44)_{10} = (101100)_2$

Lab Activity:

Do it yourself

Chapter-4 Working with Flash

Oral Skills

1. Do it yourself

Writing Skills

Multiple Choice Questions:

2. **Tick (✓) the correct option:**

a) a) keyframes   b) b) F6

c) c) F8   d) c) library

e) b) the arrow tool.

3. Fill in the blanks:

a) The Flash Workspace is the big white space which is seen in the middle of the workspace.

b) The gray area surrounding the stage is known as the keyframe.

c) Flash is a very powerful multimedia software package developed by Macromedia.

d) The Flash is the arrangement of different flash elements like the Tools panel, Control panel, Property, Inspector and Windows.

4. Answer the following questions:

a) There are two kinds of gradients as follows:

   (i) **Linear Gradient :** It alters colour from the beginning point to the end point in a straight line.

   (ii) **Radial Gradient :** It alters colour n an outward direction beginning from the focal point.

b) Two methods for the creation of an animation in Flash are:

   (i) Tint Tween

   (ii) Shape Tween

c) There are four categories in Tools Panel as follows:

   (i) **Tools** : These are used for drawing.

   (ii) **View** : These incorporate tools such as magnifier for viewing.

   (iii) **Colors** : These incorporate tools like to fill colour with a colour palette.

   (iv) **Options :** This displays modifiers for the selected tool. It affects the editing options or tool's painting.

   The option of section of Tools Panels displays anything from text to images and shapes.

d) The default stage dimensions displayed on the Flash Window are:

   (i) Smallest size : 1 x 1 px   (pixel)

   (ii) Largest size : 2880 x 2880 px (pixel)

e) By Tint Tweening, we mean that in our animation, there would be several instances in which an alteration in colour would be required. Whether it would be to show or hide an object, this technique can be utilized in several ways.

f) Steps to rotate a file, the steps are:

   ❖ Click on object to be selected or by dragging a selection marquee around it.

   ❖ Click on Free Transform Tool on Tools Panel.

   ❖ Click on Rotate/Skew Modifier button in Options are of Tool Panel.

   ❖ Drag any corner handles on Confined Box to rotate the shape. Drag handles along the side to skew the object.

   ❖ Drag Circle Handle to alter transformation point.

Lab Activity:

Do it yourself

Model Test Paper - I

1. Tick (✓) the correct option:

a)   a)   Binary   b)   c)   Windows

c)   a)   software   d)   b)   the arrow tool

e)   c)   library

2. Fill in the blanks:

a) Actual Number System consists of 2 digits

b) The Back and Forward buttons are available on the Toolbar.

c) All physical parts of the computer are called hardware.

d) The gray area surrounding the stage is known as the keyframe.

e) We can open Windows Explorer directly from right clicking Start Button and then Clicking on Open Windows Explorer.

3. Answer the following questions:

a) The Hexadecimal digits are base-16 number system, because every position in number represents an increasing number with a base of 16.

   They look same as Decimal Numbers upto 9, but there are letters ("A", "B", "C", 'D", "E", "F") in place of decimal numbers 10 to 15.

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❖ Click Start button
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We view a Window and its various parts help us navigate or work with files, folders and libraries.

Chapter-5 Working with

Oral Skills

1. Do it yourself

Writing Skills

Multiple Choice Questions:

2. **Tick (✓) the correct option:**
a) c) Ctrl + loop playback
b) c) Onion Skin
c) a) Timeline
d) c) Onion Skin

3. **Fill in the blanks:**
a) View, Guides and Grids, Show Grids are selected to display the grids on the stage.
b) When we take an object out of the Library, the object is referred to as importing image of a symbol.
c) The Active Layer in the Timeline is indicated with a Pencil Icon.
d) Layers are like paper sheets that may hold objects and are stacked on top of each layer.

4. **Answer the following questions:**
a) We will rename a Layer as follows:
❖ Double click Layer Name.
❖ Type a new name.
❖ Press Enter.
❖ Layer's name is altered.

b) In Flash, we can make layers which assist us arrange and stack our artwork. Layers work as clear pieces of film stacked on top of each other. We can draw many sketches in layers.

c) The application of Onion Skin Tool is to make frame-by-frame animations, making an object in one frame and changing the object slightly in next, and so on until we complete the animation. It's tough to make these animations when you can't see previous frames. Onion Skins permit you to see previous frames, working as a visual guide to assist you draw the current frame.

d) We will delete a Layer by:
❖ Right clicking on Layer you wish to delete.
❖ Select Delete Layer.
❖ The selected layer disappears from the Timeline.

e) The steps to hide a layer are:

❖ Click Black button beneath the eye icon column.

❖ A Cross (x) marks the layer bullet and all objects on the layer becomes invisible.

Lab Activity:

Do it yourself

Chapter-6 Formulas and Functions in Excel

Oral Skills

1. Do it yourself

Writing Skills

Multiple Choice Questions:

2. **Tick (✓) the correct option:**

a) b) Statistical   b) a) Formula

c) b) Sort   d) a) Custom Filter

3. **Fill in the blanks:**

a) Formula is an instant way to find out a set of data in a range.

b) The pre-defined commands that do some specific operations are known as **Auto Sum, Recently Used, Financial, Logical, Text, Date & Time, Lookup & Reference, Maths & Trig.**

c) An absolute referencing is specified with **'$'** sign.

4. **Answer the following questions:**

a) Data can be stored out in many ways as follows:

(i) By making a separate folder and saving it.

(ii) By command Ctrl + S.

(iii) By clicking on Save icon in Office button.

b) Filtering is a process of finding data set in a cell range at a fast speed. A filtered range shows only those rows that meet all conditions specified for a column. Filters can be applied to a single range on a worksheet at a time. Let us follows these steps to filter data:

❖ Click on a cell to be filtered.

❖ Click on **Data** tab.

❖ Click on **Filter** in Sort & Filter group. You see small arrows on each column heading.

❖ Click on **arrow** on required column heading.

❖ A list appears with all values selected by default. You can choose desired value and click on **OK** button.

The data gets filtered.

c) **IF** is a conditional function that shows either **TRUE** or **FALSE** as output. It shows first value as an output if specified condition evaluates to TRUE and second value if condition evaluates to FALSE.

Syntax   : = IF (condition, value _if_ TRUE, value_if_FALSE)

Example 1 : = IF (A1>32, 45, 82)

It means that if the value in cell A1 is greater than 32, display 45 otherwise display 82 as an output.

Example 2 : = IF (A3=60, A3*20, "SORRY")

It means that if condition is true, calculate A3*20 otherwise display output in form of "SORRY" text.

d) By Sorting, we mean arranging data in ascending or descending order. MS Excel 2010 offers two options for sorting data.

❖ Select cells in a worksheet.

❖ Click on the **Data** tab on Ribbon.

❖ Click on **Sort A to Z** (ascending order) or **Z to A** (descending order) in **Sort & Filter** group.

Steps for sorting data based on various criteria are:

❖ Select cell range.

❖ Click on **Data** tab from Ribbon.

❖ Click on **Sort** from Sort & Filter group.

❖ Specify conditions on which data is to be sorted in Sort dialog box.

(For example, **Sort by**: Total, **Sort on**: Values, **Order**: Largest to Smallest).

❖ Click on **OK** button.

e) The applications of 'MIN', 'MAX' functions are:

Min is used to display the smallest (minimum) value in a range of cells as an output.

Syntax   : = MIN (range or numbers).

Example : = MIN (A1:A6) gives as an output.

Max is used to display the largest value in a range of cells as an output.

Syntax   : = MAX (range or numbers).

Example : = MAX (A1:A6) gives an output.

f) Cell Referencing helps us to identify behaviour of a cell address in a formula when it is copied from one cell to another.

In MS Excel 2010, Cell Referencing is of 3 types – **Relative Referencing, Absolute Referencing** and **Mixed Referencing.** Every cell is made up of a column part and a row part which is **address** of cell. Cell is called **relative** when both parts are not fixed. It is called **absolute** when both parts are fixed. A cell is called **mixed** when only one out of them is fixed.

Lab Activity:

Do it yourself

Chapter-7 Chart in Excel

Oral Skills

1. Do it yourself

Writing Skills

Multiple Choice Questions:

2. **Tick (✓) the correct option:**

   a) b) Ctrl + P   b) c) both

   c) a) Compact   d) a) Cylinder

3. **Fill in the blanks:**

   a) Cone and Cylinder are the examples of Pie charts.

   b) Charts are easier to compare and understand.

   c) Insert display columns with a pyramid shape.

   d) A picture displaying data is known as Chart.

4. **Answer the following questions:**

   a) A pie chart displays data in a comparative manner. It includes the size of things that make up the data series to sum up items.

   b) There is an option to resize and move a chart in MS Excel 2010. Handle is the process used to adjust a chart by dragging its frames:

   + In order to resize a chart in proportion, drag the corner handle on the chart diagonally.

   + In order to move a chart, point anywhere inside the chart and drag it in the required direction.

c) A Chart is a visual representation of data. We can represent numerical data in graphical formats. This representation is called Chart or Graph. The main components of a chart include Plot Area, Value Axis, Category Axis, Data Points, Chart Area and Legend.

We can display information using various types of charts such as:

1) **Column Chart :** It is used either to display data changes or to compare different items.

2) **Pie Chart** : It displays data in a comparative manner. It includes size of things that make up data series to sum up items.

3) **Bar Chart** : It displays comparison among individual items.

4) **Line Chart** : It displays changing trends in data at equal intervals. It represents data in form of different lines which vary at equal intervals.

5) **Other Charts :** These include Surface, Doughnut, Bubble and Radar Charts.

6) **Area Chart** : It displays changes in values over a period or categories.

7) **Scatter Chart :** It displays pairs of values in a scatter format.

d) We can delete the data from a chart by selecting the data and then pressing the Delete option.

e) We can alter the chart type using the Design Tab:

Step 1 : Double click on the chart. You can see the Design tab. It contains chart tools.

Step 2 : Click on Change Chart Type from the Type Group.

Step 3 : Select the new Chart Type and subtype from the Change Chart Type dialog box.

Step 4 : Click on the OK button.

f) We can briefly explain Pie Chart, Line Chart and Column Chart as follows:

1) **Pie Chart** : It displays data in a comparative manner. It includes size of things that make up data series to sum up items.

2) **Line Chart** : It displays changing trends in data at equal intervals. It represents data in form of different lines which vary at equal intervals.

3) **Column Chart** : It is used either to display data changes or to compare different items.

Lab Activity:
Do it yourself

Chapter-8 Computer Virus

Oral Skills
1. Do it yourself
Writing Skills
Multiple Choice Questions:
2. **Tick (✓) the correct option:**
   a) c) biological   b) a) commonly
   c) b) infects   d) c) four
3. **Fill in the blanks:**
   a) Virus multiplies on the computer by producing copies of itself.
   b) Virus can damage your floppy disk contents.
   c) Every virus has a unique event associated with it.
   d) A virus may be introduced to computer system along with any software program.
4. **Answer the following questions:**
   a) Resident virus definition applies widely to any type of virus which inserts itself into a system's memory.

b) A Logic Bomb is a programme that is executed only when a particular condition is met. The virus: Friday the 13th was programmed so as to get executed on that specific date.

c) Hackers signify those people who use their skills to enter into computer systems without any authorization. They are computer enthusiasts who break down into secure systems to get information about others and most probably use this information to play pranks.

d) Network Virus is a type of virus which spreads across networks in computers. For example, SQL Slammer and Nimda worms are viruses which spread over corporate networks via e-mails.

e) A cracker is a malicious programmer who receives unauthorized access to computer systems for the purpose of stealing, corrupting or altering information.

Lab Activity:
Do it yourself

Chapter-9 Working with QBasic

Oral Skills
1. Do it yourself
Writing Skills
Multiple Choice Questions:
2. **Tick (✓) the correct option:**
   a) c) number   b) a) decimal
   c) b) particular d) a) two
3. **Fill in the blanks:**
   a) QBasic is a simple programming language for beginner programmers.
   b) Keywords in QBasic contain specific meanings.
   c) Keywords are also known as Reserved words.
   d) The data may be a letter words, numbers or special characters.
4. **Answer the following questions:**
   a) Constants are known as the data or the values in a program that cannot be altered during program execution. The data may be a letter, words, numbers or special characters. They are:

(i)   String Constant

(ii) Numeric constant

b)   String Constant is a letter, words, numbers, combination of letters with numbers or special characters enclosed in double quotes. Mathematical operations cannot be carried out on String Constant.

"B', "APPLE", "SYMBOL NO: 10205", "!!! Welcome to QBASIC Word !!!", etc. are some of the examples of String Constants.

c)   Numeric Constant signifies to a number. A number with or without decimal point is called a Numeric Constant. Thousands separators are not allowed to utilize in Numeric Constant. The numeric data must not be enclosed in double quotes: 101, 105.50, 720, 45603, etc. are some of the examples of Numeric Constants.

d)   A variable is a place in computer memory containing a name and stores data temporarily. Every program defines various numbers of variables. A value of a variable can be altered during execution of program. There are mainly 2 kinds of variables:

(i)   String Variable   : It stores data. Dollar ($) is its types declaration sign.

(ii) Numeric Variable : It stores numeric data. A numeric variable can be Integer, Long Integer, Single Precision or Double Precision variables.

e)   CLS Statement: It is a command utilized to clear the output screen. When we run a program maintaining the CLS command, it clears the output screen.

Print "This is to show the use of CLS command."

CLS

Print "The earlier output has been disappeared."

Lab Activity:

Do it yourself

Model Test Paper - II

1.   **Tick (✓) the correct option:**

a)   a)   Timeline   b)   b)   infects

c)   a)   Cylinder   d)   a)   decimal

2.   **Fill in the blanks:**

a)   The Active Layer in the Timeline is indicated with a Pencil Icon.

b)   An absolute referencing is specified with **'$'** sign.

c)   Every virus has a unique event associated with it.

d)   Insert display columns with a pyramid shape.

e)   Keywords are also known as Reserved words.

3.   **Answer the following questions:**

a)   We will delete a Layer by:

❖   Right clicking on Layer you wish to delete.

❖   Select Delete Layer.

❖   The selected layer disappears from the Timeline.

b)   By Sorting, we mean arranging data in ascending or descending order. MS Excel 2010 offers two options for sorting data.

❖   Select cells in a worksheet.

❖   Click on the **Data** tab on Ribbon.

❖   Click on **Sort A to Z** (ascending order) or **Z to A** (descending order) in **Sort & Filter** group.

Steps for sorting data based on various criteria are:

❖   Select cell range.

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❖   Specify conditions on which data is to be sorted in Sort dialog box. (For example, **Sort by**: Total, **Sort on**: Values, **Order**: Largest to Smallest).

❖   Click on **OK** button.

c)   Hackers signify those people who use their skills to enter into computer systems without any authorization. They are computer enthusiasts who break down into secure systems to get information about others and most probably use this information to play pranks.

d) We can delete the data from a chart by selecting the data and then pressing the Delete option.

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Activity:

a. Do it yourself

b. Do it yourself

Project Work:

Do it yourself