Computer Studies

Key

Book - VI

CH-1 COMPUTER LANGUAGE

Exercises

A. 1. Program, 2. Four, 3. Machine,
   4. Ada Lovelace, 5. High level,
   6. Assembly, 7. Syntax, 8. Off, on.

B. 1. True, 2. True, 3. True, 4. False, 5. False,
   6. False, 7. True, 8. False.

C. 1. (b), 2. (c), 3. (c), 4. (b).

D. 1. A computer language includes various languages that are used to communicate with a computer machine. Some of the languages like programming language which is a set of codes or instructions used for communicating the machine. Machine code is also considered as a computer language that can be used for programming.

2. All the languages that are now available can be classified into the following categories: Machine language, Assembly language, High-level language and Fourth generation language.

   Assembly Language : Assembly Language is the second generation programming language that has almost similar structure and set of commands as machine language. Instead of using numbers in Machine Language here we use words or names in English forms and also symbols. The programs that have been written using words, names and symbols in assembly language are converted to machine language using a Assemble. Because a computer only understands machine code languages that's why we need a Assembler that can convert the Assembly language to Machine language. So, that the computer gets the instruction and responds quickly.

3. The high level languages are the most used and also more considered programming languages that helps a programmer to read, write and maintain. It is also the third generation language that is used and also running till now by many programmers. They are less independent to a particular type of computer and also require a translator that can convert the high level language to machine language. The translator may be an interpreter and compiler that helps to convert into binary code for a computer to understand. There is various high level programming languages like C, FORTRAN or Pascal that are less independent and also enables the programmer to write a program.

4. **Interpreter :** High Level Language programs need to be translated into machine language by using the translator programs. This translator program is used to convert a high level language program into machine language. An interpreter translates line by line, executes the instruction and then repeats the procedure for the remaining instructions. If any errors are found, they are to be removed immediately. As the converted form is not stored anywhere, so it has to be generated at the time of execution of a program. Interpreter programs are preferred for beginners and are slow in execution speed.

Compiler : It plays an important role on the computer as it can convert to machine language and also checks for errors if any before executing. There are several high level languages that were used earlier and also now like COBOL, FORTRAN, BASIC, C, C++, PASCAL, LISP, Ada, Algol, Prolog and Java. It is user friendly as the programs are written in English using words, symbols, characters, numbers that need to be converted to machine code for processing.

5. Fourth generation languages are combination of languages with the following features:
   ❖ Highly user-friendly and independent of any operating system.
   ❖ Very high speed of execution. Designed to reduce the level of programming efforts.
   ❖ Designed to reduce the overall time it takes to develop software and the cost of software development. In 4GL, the user has to specify only the required output they want, while the computer determines the sequence of instructions that will accomplish those results.

E. 1. Mohit's uncle used high level language.
   2. Java is an object oriented language. Its syntax is common as C and C++. Java programs are compiled to byte code.

CH-2 MORE ON WINDOWS 10
Exercises

A. 1. Organize, 2. Copying, 3. Fonts, 4. Disk Cleanup, 5. Continuum.

B. 1. True, 2. True, 3. False, 4. False, 5. True.

C. 1. (a), 2. (b), 3. (b).

D. 1. Windows Media Player is a media player and media library applicator developed by Microsoft that is used for playing audio, video and viewing images on personal computer running the Microsoft Windows Operating System, as well as on pocket PC and windows Mobile based devices.

2. **Ripping :** We can copy songs from our favorite music CDs/DVDs onto our computers with Windows Media Player. When we rip music, we are actually copying songs from a CD to computer. After the songs have been copied to our computer, we can use Windows Media Player to play and organize the songs, create play lists, and copy music to a portable device.

Burning : When you create a CD or DVD, you must tell your PC running Windows 10 what you are copying and where you interned to play it: Music for CD player? Photo Slide shows for TV's DVD player? or files to share on your computer?

3. Microsoft Windows Hello is a biometric identify and access control feature that supports fingerprint scanners, iris scanners and facial recognition technology. Biometric logins are secure, fast, and easy to create. Windows Hello requires appropriate hardware devices to be connected to the system for its proper working.

4. To create a new desktop, follow the steps given below:
   ❖ Click on the button situated on the taskbar. The Task View Task View Pane opens and displays the preview of all the open windows.
   ❖ Click on the New desktop button located at the bottom-right corner of the Task View Pane. A new desktop thumbnail named 'Desktop 2' appears.
   ❖ Click on the thumbnail to view the newly created desktop. It is a replica

of Desktop 1 but doesn't display the applications opened in Desktop 1. You can open the apps that you want to use on this desktop. You can group the desktop windows by opening similar kind of apps in one desktop.

❖ Click on the Task View button again to switch between desktops.

5. Disk cleanup is a Microsoft Software utility first introduced with Windows 98 and included in all subsequent releases of windows. It enables us to remove files that are no longer needed or that can be safely deleted. Removing unnecessary files, including temporary files, can help to speed up and improve the performance of the computer.

E. 1. Rohit need to perform Burn Files to a Disc option to burn his favorite songs to a CD.

2. 'Windows Hello' feature of Windows10 can help Deepak to make his system secure through biometric login. Because Microsoft Windows Hello is a biometric identify and access control feature that supports fingerprint scanners, iris scanners and facial recognition technology. Biometric logins are secure, fast, and easy to create.

CH-3 FLOWCHARTS AND PROGRAMS
Exercises

A. 1. Diagram, 2. Start/Stop, 3. Processing, 4. Fortran, 5. Java.

B. 1. (a), 2. (a), 3. (b), 4. (b), 5. (c).

C. 1. (a), 2. (a), 3. (a), 4. (c)

D. 1. A flowchart is a type of diagram that represents an algorithm, workflow or process, showing the steps as boxes of various kinds and their order by connecting them with arrows. This diagrammatic representation illustrates a solution model to a given problem. Flowcharts are used in

analyzing, designing, documenting or managing a process or program in various fields.

2. A flowchart imparts all information visually by using standard symbols to represent these different functions. It uses arrows to represent the sequence in which the instructions should be performed.

3. **Start/Stop Symbol:** This symbol is used to show where your flow begins or ends.
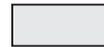
Input/Output Symbol: This symbol is used to indicate the acceptance of inputs from a user or the output or the result concluded.

Flow Lines: The flowchart symbols are connected with the help of flow lines.

Processing Symbol: The symbol is used to illustrate a process, action or an operation.

Decision Box: The symbol is used in a process flow to as a question. And the answer to the question determines the arrows coming out of the symbol.

Connector: In flowcharts, this symbol is typically small and is used as a connector to show a jump from one point in the process flow to another.

4. **Advantages of flowcharts :**

❖ **Communication:** Flowcharts are better way of communicating the logic of a

system to all concerned or involved.

❖**Effective Analysis:** With the help of flowchart, problem can be analysed in more effective way therefore reducing cost and wastage of time.

❖**Proper Documentation:** Program flowcharts save as a good program documentation, which is needed for various purposes, making things more efficient.

Disadvantages of Flowcharts:

❖**Complex logic:** Sometimes, the program logic is quick complicated. In that case flowchart becomes complex and clumsy. This will become a pain for the user, resulting in a waste of time.
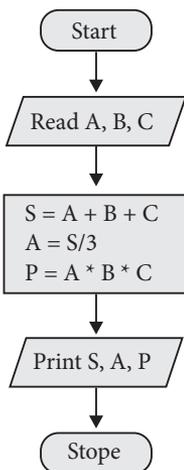
❖**Alterations and Modifications:** If alternations are required the flowchart may require re-drawing completely. This will usually waste valuable time.

❖**Reproduction:** As the flowchart symbols cannot be typed, reproduction of flowchart becomes a problem.

5. a. This flowchart depict the conversion of Celsius to Fahrenheit.

b. 2°C = 35.6°F, 10°C = 50°F

6.

```
        ( Start )
            |
            v
     / Read A, B, C /
            |
            v
    | S = A + B + C |
    | A = S/3       |
    | P = A * B * C |
            |
            v
     / Print S, A, P /
            |
            v
        ( Stope )
```

D. 1—(b), 2—(a), 3—(b).

E. 1. No I will not write it directly. Because a program can be viewed as an elaborate algorithm. In mathematics and computer science, an algorithm usually means a small procedure that solves repetitive problem. So I use flow chart to write a program.

2. Yes, we can solve many problems of our daily by using algorithm and flowchart. We can put available resources in planned way with the help of flowchart and get maximum results which help us to reduce the upcoming problems.

My Activity

Q	B	A	S	I	C	F	B
E	A	L	G	R	G	B	A
D	F	O	R	T	R	A	N
A	E	G	H	I	T	S	S
P	D	O	C	Q	R	I	J
O	W	C	B	V	U	C	X
J	A	V	A	C	F	A	Z
A	N	M	L	K	Y	C	++

CH-4 MORE ON MS POWERPOINT 2016

Exercise

A. 1. Transitions, 2. Text, objects,

3. Microphone, 4. From Beginning,

5. Loop until Stopped.

B. 1. True, 2. True, 3. False, 4. True,

5. False, 6. True.

C. 1. (b), 2. (b), 3. (c), 4. (a).

D. 1. Moving objects, such as text, graphics, charts, logos, etc. that are made up of a sequence of images displayed after this other on the slide are called Animations. Animation is quite helpful when you want to focus on important points. It also controls the sequence of the flow of information and helps in making information more extraordinary.

Apart from giving visual effects to your presentation, you can also sizzle up your slide objects – the text, pictures,

shapes, tables, SmartArt graphics, etc. by applying sound effects.

2. Transitions are motion effects that when in Slide Show view add movement to your slides as you advance from one slide to another. There are many transitions to choose from, each one of which allows you to control the speed and even add sound.

3. You have perform following steps to insert your own sound in a presentation:
   ❖ Click the Record button and start reading your script.
   ❖ Click the Stop button when you want to pause recording: click the Record button to resume recording.
   ❖ You can click the Play button at any time to play back what you have recorded so far. Notice that the dialog box notes how many seconds your recording lasts.
   ❖ Click the OK button in the Record Sound dialog box when you have finished recording the narration for you slide.
   ❖ The Audio icon appears on your slide to show that your slide is accompanied by an audio file.

4. To insert pictures and Clipart in presentation:
   ❖ Open the PowerPoint presentation you will add the clip art to.
   ❖ Click the "Insert" tab and select Clip Art from the Images group. A Clip Art pane will appear.
   ❖ Enter the keyword of the clipart you will insert in the Search For field.
   ❖ Choose the collection you will search for the clip art in the Search In drop-down menu.
   ❖ Open the Results Should Be drop-down menu. Select the clipart you will insert. Clipart
   ❖ Click the image in the Clip Art pane to insert it in the slide.

5. To import data from word file follow the steps given below:
   ❖ Click on the View tab and select the Slide Sorter button.
   ❖ Now click on the New Slide drop-down menu on the Home tab. Select the Slides from Outline option.
   ❖ The Insert Outline dialog box will appear. Browse the location of the Word file.
   ❖ Select the file and click on the Open button.

E. 1. Mohit need to use Transition Effects to link every slide to its succeeding slide.
   2. See Q. D.5.

CH-5 MICROSOFT EXCEL 2016

Exercise

A. 1. F4, 2. Ctrl+C, 3. Format, 4. Ctrl+F9,
   5. Enter, Cancel, 6. 15 and 8.43,
   7. End,

B. 1. True, 2. False, 3. False, 4. True,
   5. False, 6. False, 7. False.

C. 1. (c), 2. (b), 3. (c), 4. (a), 5. (a), 6. (b),
   7. (a).

D. 1. **Using Edit Mode**
   ❖ Select the cell D6. Double-click on the cell.
   ❖ The insertion point will blink within the cell.
   ❖ Note that the Edit mode is displayed on the left side of the pointer at the desired place and modify the contents.
   ❖ Press the Enter key. The changes will be entered in the current.
   ❖ Observe, the Edit mode indicator modifies to Ready mode.

   2. **Inserting a Column/Row**
   ❖ Select the column or cell to the left of which a new column is to be inserted. Here, we have selected column 'E'.
   ❖ Click on the drop-down arrow of the

Insert button in the Cells group on the Home tab and select the Insert Sheet Columns option. Excel inserts a blank column to the left of column 'E' and shifts the entries of column 'E' to column 'F'.

❖ Similarly you can insert a row as you insert a column. Select the row or a cell above which a new row is to be inserted and choose insert sheet Rows from the options of Insert drop-down menu.

3. ❖ After making changes in a cell, you may want to cancel the changes and retrieve the earlier data. To undo the last action (s) done, use the Undo button on the Quick Access Toolbar.

❖ The Redo command is used to quickly repeat the last action (s) that you have undone using Undo command. To do so, click on the Redo button on the Quick Access Toolbar.

4. **Copying and Pasting Data**
   ❖ Select the cell or a range of cells you require to copy. Let us say B4:D4.
   ❖ Click on the Copy button in the Clipboard group. The dashed line will display around the selected cells.
   ❖ Select the destination cell, let us say F6 and click on the Paste button in the Clipboard group. The text will be copied to the new location.
   ❖ If you want to paste the same data many times, you require to click on the Paste button in different cells.

5. Do the following steps using Drag and Drop method:
   ❖ Select a cell or a range of cells. Place the mouse pointer at the edge of the selected cells.
   ❖ Observe that the pointer turns from a white cross symbol to a move pointer symbol +.

❖ Drag the selected cell or a range of cells to a new destination and release the mouse button. The data will be moved to a new location.

6. Data can be moved by using following steps :
   ❖ Right-click on the cell to open
   ❖ Shortcut menu and choose the Cut command.
   ❖ Now, select the destination cell, right-click on it and select Paste option.

7. Flash Fill is a time-saving feature of MS Excel, which recognises the data fill pattern that you use repeatedly in a worksheet and then fills the unfinished series accordingly.
   Let us try it practically.
   ❖ Make two columns, NAMES and INITIALS, in the Excel sheet.
   ❖ Fill the data in NAMES column as shown in the figure.
   ❖ The INITIALS column should have data that is a combination of the first letters of first name and the Last name, Like RK for Ravi Kumar.
   ❖ Type RK in the INITIALS column and press Enter key.
   ❖ Click on the Fill drop-down arrow located on the Home tab in the Editing group and select the Flash Fill option. You can also use the shortcut key Ctrl + E.
   ❖ The initials of the remaining entries will be automatically added to the cells of the INITIALS column.

8. **To modify the row Height**
   ❖ Select the row.
   ❖ In the cells group on the Home tab. Click on the drop-down of arrow the Format button.
   ❖ Click on the Row Height option.
   ❖ The Row Height dialog box displays. Enter the required value and click OK.

❖ The change will be shown on the selected row.

To modify the Column Width

❖ Select the column.

❖ Click on the drop-down arrow of the Format button on the Home tab. From the displayed list of options, click on Column Width.

❖ The Column Width dialog box displays. Enter the required value and click OK.

Notice the change on the selected column.

9. The Auto Fill is the easiest way to fill data automatically in the worksheet cells. Do the following steps to fill data automatically in the worksheet cells.

❖ Type 'January' in cell B1.

❖ Place the pointer at the lower right corner of the cell.

❖ The mouse pointer turns into a black "+" cross symbol.

❖ Hold down the left mouse button and drag the fill handle up to cell B5. Release the button.

❖ The months February to May would display in the cells B2 to B5.

E. 1. Manish need to perform following steps to insert a new column:

❖ Select the column or cell to the left of which a new column is to be inserted. Here, we have selected column 'E'.

❖ Click on the drop-down arrow of the Insert button in the Cells group on the Home tab and select the Insert Sheet Columns option. Excel inserts a blank column to the left of column 'E' and shifts the entries of column 'E' to column 'F'.

2. Manjit can use Auto Fill to finish his assignments quickly. He need to perform following steps:

❖ Type 1' in cell B1 and Type 2 in B2.

❖ Select both rows and place the pointer at the lower right corner of the cell.

❖ The mouse pointer turns into a black "+" symbol.

❖ Hold down the left mouse button and drag the fill handle up to cell B100. Release the button.

❖ The counting 1 to 100 would display in the cells B1 to B100.

3. A. D4 = B4 + C4

D6 = B6 + C6

D9 = D4 + D5 + D6 + D7 + D8

B. B2

C. C8

D. Enter.

CH-6 FORMULAS AND FUNCTIONS

Exercises

A. 1. calculation, 2. Equal to (=),

3. Cell reference, 4. Absolute reference,

5. Concentration, 6. Arguments,

7. Parenthesis, 8. &.

B. 1. True, 2. True, 3. True, 4. True, 5. True,

6. True, 7. True, 8. True.

C. 1. (a), 2. (c), 3. (c), 4. (a), 5. (b), 6. (a).

D. 1. Formulas are the user defined instructions to perform arithmetical calculations, whereas, Functions are the pre-defined on in built formulas that come with Excel.

A formula forms a relationship between two or more cells. It is an expression that can incorporate cell addresses, numbers arithmetic operators, and parenthesis. You can perform simple as well as complex calculations using formulas.

Let us use it to calculate the sum of the numbers in B4, B5, and display the result in B11.

Follow the steps given below to use a formula:

❖ Click on the cell B11 (where you

want to show the result) and type = sign.

❖ Click on the cell B4. A dashed border called marquee will display around it. Its address will display in the B11 and in the Formula bar. This process of clicking on the cell to add its reference to a formula is known as Pointing. The Status bar will exhibits the status of Point.

❖ Now Type the + symbol.

❖ Repeat the above steps till B9 or type: = B4 + B5 + B6 + B7 + B8 + B9 in B11. You will observe the different color borders that display around these cells.

❖ Press the Enter key. Cell B11 will show the total of all the values from B4 to B9.

2. There are four types of cell reference: (i) Relative Reference, (ii) Absolute Reference (iii) Mixed Reference, Circular Reference.

(i) **Relative Reference :** By default, all cell references are relative references. When copied across multiple cells, they change based on the relative position of rows and columns. For example, if the formula in A3 is = A1 + A2 and you copy the formula from A3 to B3. Excel automatically changes the reference to match the position of cells, i.e., = B1 + B2 .

(ii) **Absolute Reference :** There may be situations when you do not want a cell reference to change when filling cells. Unlike relative references, absolute references do not change when copied or filled. You can use an absolute represent to keep a row and/or column constant. An absolute reference is designated in a formula by the addition of a dollar sign $. It can precede the column reference, the row reference or

both. For example = A1+A2 To create and copy a formula using absolute references:

3. Ways of entering a cell reference in a formula:

Using Copy-paste Option:

❖ Click on the button New Sheet present to the right of the Sheet 1 tab at the bottom of the screen. A new worksheet with the name Sheet 2 will be added. Now, enter the data as shown in the Figure.

❖ Click on the Sheet 1 tab. Now, click on cell B11 where the 'SUM' function is used.

❖ Copy the formula using Ctrl+C.

❖ Click on the Sheet 2 tab. Click on the cell B11. Now, paste the formula using Ctrl + V. The cell will display the result of the formula i.e., summation of the cell values.

Using Sheet Reference

In this method, we use sheet number, exclamation mark, and cell address to refer to a cell a particular worksheet. For example, by writing Sheet1! D4, we are referring to the cell D4 of Sheet1. Let us try to use this method to calculate the total salary.

❖ Click on the cell C4 of Sheet 2.

❖ Type = B4 +Sheet1:D4 in it and press Enter. This will add the 'Incentive Amount' present in the cell D4 of Sheet1 with the 'Salary' present in cell B4 of Sheet2.

4. To rename a worksheet do the following steps.

❖ Right-click on the 'Sheet2' tab in the worksheet.

❖ A shortcut menu will appear. Click on the Rename option.

❖ The Sheet tab gets highlighted. Type the new name and press Enter.

❖ Note that the name of the Sheet2 gets changed.

5. Functions are the pre-defined formulas or built-in calculations. Functions save time and stop the chance to write wrong formulas. They accept Arguments and return Values. Functions start with the equal to (=) sign followed by the function name and then the list of arguments separated by comma within the parenthesis.

6. A formula in a cell that directly or indirectly refers to its own cell is called a circular reference. For example, if you enter the formula = A1 + A2x3 in cell A2, you are making the formula to refer to its own cell value, which is not possible. In such a case, an alert dialog box indicating the problem displays as shown in the figure given below. As soon as you click on the OK button of the alert dialog box, 0 will be returned in the cell containing formula. The Status bar will also notify you that circular reference is found in the workbook and the address of that cell will be displayed on it.

7. **Uses of common functions:**

    Autosum: Besides being the common and the fastest way to find numbers in a range, the Autosum option also be used like Average, Count, Max, Min, etc. This option is available in two places :
    ❖ In the Editing group on the Home tab.
    ❖ In the Function Library group on the Formula tab.

    Average ( ) : The Average function returns the average of the range values. The arguments can be a range of cells, simply numbers, or numbers along with cell reference (s).

    Max (): It is used to find the largest value in the given range.

Today ( ) : It is used to show the current date.

8. **Rules To Enter A Function**
    ❖ All Excel functions must start with = sign.
    ❖ Function name must be a valid Excel name. For example, SUM, AVERAGE.
    ❖ Function name must be followed by an opening and closing parenthesis.
    ❖ Arguments are enclosed in the parenthesis. For example; = SUM (A1:A5).

9. Steps to find the GCD of three numbers:
    ❖ Enter three integers in cell A1, A2, and A3.
    ❖ Now, select the cell A4 where the GCD of these numbers will be exhibited.
    ❖ Click on the Math & Trig drop-down button in the Function Library on the Formulas tab and select GCD from the displayed list of options.
    ❖ The Function Arguments dialog box comes into sight. Type A1, A2 and A3 in Number1, Number2, and Number3 text boxes respectively. Notice that the result of the formula emerges near the bottom of th dialog box.
    ❖ Click OK. The output will come into view in the cell A4.

E. 1. Saurav have to use Max () and Min ( ) functions to achieve the task.

2. **Step 1 :** In A2, type the header With 10% increase. Since we have a number mixed with text, Excel will treat the entire cell as text.

    Step 2: Press Tab, then in B18, enter this Excel percentage formula: =A2 * 1.10

    Alternatively, you can enter the formula this way: =A2 * 110%

    The Amount is 16150.

CH-7 USING EXCEL AS DATABASE

Exercises

A. 1. organized, 2. data form, 3. Field name, 4. Consolidation, 5. criteria

B. 1. True, 2. True, 3. True, 4. False, 5. False

C. 1. (b), 2. (a), 3. (c), 4. (a), 5. (b)

D. 1. A database is an organized collection of data. It is a collection of schemes, tables, queries, reports, views and other elements. It is an electronic system that allows data to be easily accessed, manipulated and updated.

In other words, a database is used by an organization as a method of storing. Managing and retrieving information.

2. Rules to enter the Field Names:

❖ Field names have to be unique.

❖ You can space out the title of the field and it will still find the topic eg.

❖ If a label field has no name, it will not be shown when the form is viewed, only when it is edited.

❖ Field names can in theory include any text, but you should stick to alpha numeric characters.

❖ Leading and trailing spaces are not significant.

3. Sorting is the process of arranging data into meaningful order so that you can analyze it more effectively. We can sort data according to a particular. Field either in increasing or decreasing order in a worksheet.

4. ❖ The excel feature "filter" is a very important feature as it saves time and reduces workload by many times especially for those who use excel all day.

❖ It is used everyday mainly for analysis work. Filters are used to find all records matching a certain criteria at one place.

❖ There are different types of filter in Excel such as number filter, text filter, begins with, end with, contains, display top 10.

❖ The benefits of filters (save time and reduces workload) increase exponentially when there are more than one or two criteria of you have 50,000 transactions items and suppose the type of transaction items and suppose the type of transaction that you look for only 5 to 10 in number, instead of searching manually you can use "Filters".

5. Data Validation is used to restrict the cell entries within a specified range.

❖ Select the range E5:E13. Choose Data > Validation. Click the Setting tab.

❖ In Allow: drop-down list box, select Whole number option.

❖ In Data drop-down list box, between option is selected by default.

❖ In Minimum: text box, type 0 and in Maximum: text box type 100.

❖ Click the Input Message tab. In Title: text box, type Validation. In Input message: box, type >=0 and <=100.

❖ Click the Error Alert tab and type 'Input is wrong' in Error Message box. Click OK to close the dialog box.

❖ If you try to enter data beyond the specified limit in the selected range, an error message will be displayed. Click on Retry to enter another value in the cell.

6. A pivot table is a program tool that allows you to recognized and summarize selected columns and rows of data in a spreadsheet of database table to obtain a desired report. A pivot table doesn't actually change the spreadsheet or database itself.

7. Sorting takes a set of data and sorts it by a chosen metric or letter. The most important difference is that sorting does not remove entries from the data set. Sorting only puts the data into a

new order.

8. Filtering on the other hand is useful in a different way. While sorting will give you the option of choosing which metric you want to prioritize. Filtering actually removes data that's irrelevant to your analysis.

E. Riya will make worksheets in group by using given steps.

❖ Create a new workbook. The 'Sheet1' worksheet is active.

❖ Press and Hold the Shift key. Click on Sheet3 Tab.

❖ Release the Shift key. Note that all the three worksheet tabs have become white and the word '[Group]' appears in the Title bar. It indicates that Sheet1, Sheet2 and Sheet3 are grouped together.

❖ Enter the data as shown in the figure, in the grouped worksheet.

❖ Format the heading by making it bold and increasing its font size to 18. Apply border around the heading 'FIRST QUARTER SALES' 2016.

❖ Select the Row 3, increase the Font size to 14 and bold it. Similarly, select Column A and apply same formatting effects.

❖ To ungroup the worksheet, click on any other Sheet tab except Sheet1 or right click on any grouped Sheet tab and select Ungroup Sheets option.

❖ All the three sheets will display the common data with formatting effects.

❖ Click on Sheet2 and change the year to 2017 Similarly, change the heading to "C O N S O L I D A T I N G   F I R S T QUARTER SALES (2016 - 2017)" in Sheet3.

❖ Save the worksheet with the name "MULTIPLE"

CH-8 WORKING WITH FLASH CS6

Exercise

A. 1. Symbol, 2. Library, 3. Three, 4. Button, 5. Morphing, 6. Instance, 7. two

B. 1. False, 2. True, 3. False, 4. False, 5. False, 6. True, 7. False

C. 1. (c), 2. (b), 3. (c), 4. (b), 5. (b)

D. 1. A symbol is reusable static image that are used mainly to create animations. The three types of symbols

Graphic Symbols : They are reusable static images that are used mainly to create animations.

Button Symbols : These symbols are used for time line navigation.

Movie clip Symbols : These symbols are reusable pieces of flash animation.

2. Follow these steps to create a symbol:

❖ Draw a car on the Stage, by using the Rectangle Tool , Oval Tool , Pencil Tool and , from the Tools panel.

❖ Choose the Selection Tool and drag the mouse pointer on the Stage to enclose the car within a rectangular selection marquee.

❖ Choose Modify > Convert to Symbol.

❖ You will get a Convert to Symbol dialog box. Choose Graphic from the Type drop down list.

❖ Specify the symbol's name - G-Car Name textbox and click OK. Your new symbol is now added in the library panel.

3. An animation is the illusion of movement created by showing a series of still pictures in rapid succession. In the world of computers, graphic software used to create this effect.

4. Instance is a copy of the original symbol. Which can have use own independent properties such as color, size, function etc, different from the original symbol.

5. Motion guides are especially useful when you work with a shape that has an obvious orientation (or direction, such as the nose of a car or an airplane). For this reason, be sure to use a symbol with an obvious orientation.

6. Any object (or group of objects) that can appear on the stage can be made into a symbol. Here's how to do it:

❖ Select one or more objects on the stage. The selected objects may include paths, text objects, bitmaps, or even other symbols.

❖ Choose Modify > Convert to Symbol, or press the F8 key. The Convert to Symbol dialog box appears.

❖ Enter a name for the symbol into the Name field.

❖ Click the radio button for the type of symbol you want to create: a movie clip, button, or graphic.

7. Animations can be created in Flash with the help of tweening, which means 'in between'. The movement from one keyframe to the other becomes well timed with the use of the tweening. There are two types of tweened animation.

❖ Motion tween   ❖ Shape tween
The main difference between both the tweening is that the Motion tweening works on symbols, whereas, shape tweening is used with objects that are not symbols and are ungrouped.

8. The Deco Tool has a symmetry brush, which enables you to create interesting textures, patterns and symmetrical drawings from symbols. It provides several distinctive effects, which can either be applied to the entire stage or any object that is selected on the stage.

9. The spray Brush tool paints with instances allows you to brush pattern of shapes at one time. By default, it emits a spray of dot particles using the currently selected Fill Color. However, it can also be used to apply a symbol as a pattern.

E. 1. Sohail need to use shape tween animation to show a smiling face changing into a crying face.

2. Mohini need to do following steps to move the clouds:

❖ Open the saved file.

❖ Notice that the layer structure matches the Clouds demo. In fact, you may use your Cloud file in this exercise if you prefer.

❖ Add a new layer and name it clouds.

❖ Select the new layer and open the Library. Drag 2-3 instances of clouds onto the first keyframe of the new layer.

❖ Single-click on the cloud instances (to select them) and add a Motion Tween (by right-clicking or choosing Insert > Motion Tween from the Menu).

❖ Flash just added the default number of frames for a new Tween (about 24). Drag the playhead to frame 12 (or about half way to the end of the animation). Now, position the clouds about halfway across the screen.

❖ To complete the second part of the animation drag the play head to the last frame and reposition the clouds once again.

❖ When you run the movie, you might decide that it is moving too quickly. By adding more frames, the animation will take more time.

❖ Adjust your animation until you are satisfied! Test the movie to watch your animation.

CH-9 THE MAIL MERGE

Exercises

A. 1. Main, 2. MS Excel or MS Access, 3. Modify, 4. Many, 5. MS Word

B. 1. True, 2. True, 3. False, 4. True, 5. True, 6.

True, 7. False, 8. False

C. 1. (b), 2. (a), 3. (b), 4. (a), 5. (b)

D. 1. The body of the standard letter to be sent to all recipients is called the Main Document as shown in the figure given below. It also contains the required field names for carrying out the merge process. Data Source as shown in the figure stores information to be brought into the main document. It is also called the data file. The data file has a table comprising columns for each field of information.

2. Once you have selected the type of mail merge, you can make your recipient list or data source. Apart from creating it in MS Word, you can import it from MS Excel or MS Access database.

3. Mail merge is used to create letters, e-mail messages, envelopes, labels and directories. The data document holds the text that repeats for all merged documents. Click on start Mail Merge and select the document type on the mailing tab as shows in the figure.

4. The process of mail merge includes three main steps.
   ❖ Creating the main document consisting the body of the letter.
   ❖ Creating the data source that comprises the records of recipients.
   ❖ Merging the data source and the main document.

5. Click on the Preview Results button in the Preview Results group of the Mailings tab. It enables you to navigate through the recipients in the data document.

E. 1. It also contains the required field names for carrying out the merge process. Data Source as shown in the figure stores information to be brought into the main document. It is also called the data file. The data file has a table comprising columns for each

field of information. For example, it may store names of people, their addresses and alike information. It has some variable data such as first name, last name of a recipients and the postal pin code of the place he/she belongs to. The header row is the first row of the table. It records collection of variable data regarding a person or a thing.

2. The different steps to choose your recipients are given below. Click on the Select Recipients button from the Start Mail Merge group of the Mailings tab. A drop-down menu comprising different options emerges.

CH-10 INTERNET SERVICES

Exercises

A. 1. Internet, 2. Web browser, 3. Skype, 4. E-learning, 5. Internet Radio

B. 1. False, 2. True, 3. False, 4. True, 5. True

C. 1. (b), 2. (c), 3. (c), 4. (b), 5. (a)

D. 1. They devised a network of four computers to exchange and share their data.

2. BSNL, Tata, Airtel, Reliance

3. The only difference between Instant messaging and Online chat is that in Instant messaging (IM), the communication come about between known users, and involves only those people whom the user has invited, whereas, Online chat could happen between unknown users too.

4. E-learning can be implemented using an Internet connection, a network, an intranet, or a storage disk. It is less expensive than traditional learning and can be used to give training to a large group of students at the same time, in an interactive and interesting manner. Thus it saves time and lowers the need for costly classroom-based training.

5. Internet Radio, is an online radio

service that is broadcasted over the Internet on dedicated radio servers. It is broadcasted in much the same way as traditional radio with regard to its presentation and format. Here, audio stream is digitized and split into small pieces for transmission across the Internet. It provides the listeners with a continuous stream of audio, which cannot be paused or replayed.

E. 1. This technology is largely used for virtual meetings among a group of people to discuss political, business, medical, or social affairs. On television most often we see that a program host is conducting interview among several participant sitting in different cities and countries. This is done through video conferencing. Popular Video conferencing applications include: Skype, Adobe Connect, Oovoo, Yugma, Ekiga, etc.

2. It is a net banking service that allows customers to perform all routine transactions such as account transfers, balance enquiries, bill payments and stop payment requests, and some even offer online loan and credit applications. These transactions can be performed from anywhere regardless of time, if one has an Internet connection on his computer. As all the services are web enabled, the customer needs to log in to the website of a bank and access the centralized database by stating the desired bank service.

My Activity Question

MODEL TEST PAPER-1

A. 1. (b), 2. (b), 3. (a), 4. (b), 5. (c)

B. 1. Machine, 2. Disk Clean Up, 3. start/stop, 4. copying, 5. Add level

C. 1. True, 2. False, 3. True, 4. True, 5. False

D. 1. A computer language includes various languages that are used to communicate with a computer machine. Some of the languages like programming language which is a set of codes or instructions used for communicating the machine. Machine code is also considered as a computer language that can be used for programming.

2. **Start/Stop Symbol:** This symbol is used to show where your flow begins or ends.
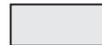
Input/Output Symbol: This symbol is used to indicate the acceptance of inputs from a user or the output or the result concluded.

Flow Lines: The flowchart symbols are connected with the help of flow lines.

Processing Symbol: his symbol is used to illustrate a process, action or an operation.

Decision Box: his symbol is used in a process flow to as a question. And the answer to the question determines the arrows coming out of the symbol.

Connector: In flowcharts, this symbol is typically small and is used as a connector to show a jump from one point in the process flow to another.

3. **Advantages of flowcharts :**

❖ **Communication:** Flowcharts are better way of communicating the logic of a system to all concerned or involved.

❖ **Effective Analysis:** With the help of flowchart, problem can be analyzed in more effective way therefore reducing cost and wastage of time.

❖ **Proper Documentation:** Program flowcharts save as a good program documentation, which is needed for various purposes, making things more efficient.

Disadvantages of Flowcharts

❖ **Complex logic:** Sometimes, the program logic is quick complicated. In that case flowchart becomes complex and clumsy. This will become a pain for the user, resulting in a waste of time.

❖ **Alterations and Modifications:** If alternations are required the flowchart may require re-drawing completely. This will usually waste valuable time.

❖ **Reproduction:** As the flowchart symbols cannot be typed, reproduction of flowchart becomes a problem.

4. Windows Media Player is a media player and media library applicator developed by Microsoft that is used for playing audio, video and viewing images on personal computer running the Microsoft Windows Operating System, as well as on pocket PC and windows Mobile based devices.

E. 1. **Machine Language:** Machine language is a low level programming language. It is the first generation language developed for communicating with a computer. It is written in machine code which represents 0 and 1 binary digits inside the computer string which makes it easy to understand and perform the operations.

2. **Features of Windows 10 :** Windows 10 is loaded with multi-tasking tools such as custom start menu, live tiles, snap assist, task view and virtual desktops to keep you organized focused and ready for anything.

3. **High Level languages :** The High level languages are the most used and also more considered programming languages that helps a programmer to read, write and maintain. It is also the third generation language that is used and also running till now by many programmers.

4. **Flowchart:** A flowchart is a type of diagram that represent an algorithm, workflow or process showing the steps as boxes of various kinds and their order by connecting them with arrows. This diagrammatic representation illustrates a solution model to a given problem.

5. **4GL:** Fourth generation computer languages are closer to human language than other high-level languages and are accessible to people without formal training as programmers.

MODEL TEST PAPER-2

A. 1. (b), 2. (c), 3. (c), 4. (c), 5. (a)

B. 1. Transitions, 2. Text, Object, 3. Format, 4. Concentration, 5. Arguments

C. 1. True, 2. False, 3. False, 4. False, 5. True

D. 1. **Rules To Enter A Function**

❖ All Excel functions must start with = sign.

❖ Function name must be a valid Excel name. For example, SUM, AVERAGE.

❖ Function name must be followed by an opening and closing parenthesis.

❖ Arguments are enclosed in the parenthesis. For example; = SUM (A1:A5).

2. ❖ After making changes in a cell, you may want to cancel the changes and retrieve the earlier data. To undo the last action (s) done, use the Undo button on the Quick Access Toolbar.

   ❖ The Redo command is used to quickly repeat the last action (s) that you have undone using Undo command. To do so, click on the Redo button on the Quick Access Toolbar.

3. Ways of entering a cell reference in a formula:

   Using Copy-paste Option:

   ❖ Click on the button New Sheet present to the right of the Sheet 1 tab at the bottom of the screen. A new worksheet with the name Sheet 2 will be added. Now, enter the data as shown in the Figure.

   ❖ Click on the Sheet 1 tab. Now, click on cell B11 where the 'SUM' function is used.

   ❖ Copy the formula using Ctrl+C.

   ❖ Click on the Sheet 2 tab. Click on the cell B11. Now, paste the formula using Ctrl + V. The cell will display the result of the formula i.e., summation of the cell values.

   Using Sheet Reference

   In this method, we use sheet number, exclamation mark, and cell address to refer to a cell a particular worksheet. For example, by writing Sheet1! D4, we are referring to the cell D4 of Sheet1. Let us try to use this method to calculate the total salary.

   ❖ Click on the cell C4 of Sheet 2.

   ❖ Type = B4 +Sheet1:D4 in it and press Enter. This will add the 'Incentive Amount' present in the cell D4 of Sheet1 with the 'Salary' present in cell B4 of Sheet2.

4. Moving objects, such as text, graphics, charts, logos, etc. that are made up of a sequence of images displayed after this other on the slide are called Animations.

Animation is quite helpful when you want to focus on important points. It also controls the sequence of the flow of information and helps in making information more extraordinary.

Apart from giving visual effects to your presentation, you can also sizzle up your slide objects – the text, pictures, shapes, tables, Smart Art graphics, etc. by applying sound effects.

To modify the row Height

❖ Select the row.

❖ In the cells group on the Home tab. Click on the drop-down of arrow the Format button.

❖ Click on the Row Height option.

❖ The Row Height dialog box displays. Enter the required value and click OK.

❖ The change will be shown on the selected row.

To modify the Column Width

❖ Select the column.

❖ Click on the drop-down arrow of the Format button on the Home tab. From the displayed list of options, click on Column Width.

❖ The Column Width dialog box displays. Enter the required value and click OK.

Notice the change on the selected column.

E. 1. **Animation Effects:** Moving objects, such as text, graphics, charts, logos, etc. that are made up of a sequence of images displayed after this other on the slide are called Animations.

   2. **Formula Errors:** If any formula is entered incorrectly in MS Excel, then Excel shows an error message rather

than the proper value. It also helps you in finding and solving the problem.

4. **Redo features:** The Redo command is used to quickly repeat the last action (s) that you have undone using Undo command. To do so, click on the Redo button on the Quick Access Toolbar.

5. **Video Clips:** Video clips are short clips of video usually part of a longer recording. They add liveliness to the presentation. PowerPoint enables you to insert a video onto a slide and play it during your presentation.

MODEL TEST PAPER-3

A. 1. (c), 2. (b), 3. (a), 4. (b), 5. (a)

B. 1. Symbol, 2. data form, 3. Main, 4. Many, 5. MS Word

C. 1. True, 2. False, 3. True, 4. False, 5. True

D. 1. Motion guides are especially useful when you work with a shape that has an obvious orientation (or direction, such as the nose of a car or an airplane). For this reason, be sure to use a symbol with an obvious orientation.

2. The only difference between Instant messaging and Online chat is that in Instant messaging (IM), the communication come about between known users, and involves only those people whom the user has invited, whereas, Online chat could happen between unknown users too.

3. They devised a network of four computers to exchange and share their data.

4. The process of mail merge includes three main steps.

❖ Creating the main document consisting the body of the letter.

❖ Creating the data source that comprises the records of recipients.

❖ Merging the data source and the main document.

5. Sorting is the process of arranging data into meaningful order so that you can analyze it more effectively. We can sort data according to a particular. Field either in increasing or decreasing order in a worksheet.

E. 1. Adobe Flash is a multimedia software platform used for production of animations, rich Internet applications, desktop applications, mobile applications, mobile games and embedded web browser video players. Flash displays text, vector graphics and raster graphics to provide animations, video games and applications. It allows streaming of audio and video, and can capture mouse, keyboard, microphone and camera input.

2. Flash provides us with the ability to create a motion guide that specifies the path of the movement for an object. Instead of having an object move from one point to another in straight path, we can make it follow an arbitrary path that we draw, i.e. a motion guide.

3. Once you have selected the type of mail merge, you can make your recipient list or data source. Apart from creating it in MS Word, you can import it from MS Excel or MS Access database.

4. E-Banking stands for Electronic Banking. It is a net banking service that allows customers to perform all routine transactions such as account transfers, balance enquiries, bill payments and stop payment requests, and some even offer online loan and credit applications. These transactions can be performed from anywhere regardless of time, if one has an Internet connection on his computer. As all the services are web enabled, the

customer needs to log in to the website of a bank and access the centralized database by stating the desired bank service.

5. Video Call or Video Conference means to conduct a conference between two or more participants at different sites by using computer network to transmit audio and video data. The participants can view each other on their monitors as well as hear voice over speakers of their laptops or desktop computers.

It implies the use of camera called Web cam and also microphone at the end of each participant to capture video and audio data in real time. Images and sounds are transmitted through Internet and delivered to other participants.

This technology is largely used for virtual meetings among a group of people to discuss political, business, medical, or social affairs. On television most often we see that a program host is conducting interview among several participant sitting in different cities and countries. This is done through video conferencing. Popular Video conferencing applications include: Skype, Adobe Connect, Oovoo, Yugma, Ekiga, etc.