



# GRADE : VII

# COMPUTER

TERM - I

YEAR 2022 – 23

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**KEYWORDS:**

- **Programming language:** A set of commands, instructions and usage rules that allow you to communicate to the computers.
- **Language translator:** A program that converts a high-level language into machine language.
- **Binary digits:** The digits 0 and 1.

**EXERCISES:**

**Q: A Tick (✓) the correct options.**

- 1) Which language does a computer understand directly?
 

a) Assembly	b) <b>Machine</b>	c) C++
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- 2) Which of the following are considered as low-level languages?
 

a) Machine and FORTRAN	b) <b>Machine and Assembly</b>	c) COBOL and C++
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- 3) Which of the following language is closer to human languages?
 

a) <b>High-level language</b>	b) Machine language	c) Assembly language
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- 4) A binary digit is called a:
 

a) Nibble	b) <b>Bit</b>	c) Byte
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- 5) A byte consists of:
 

a) 4 bits	b) <b>8 bits</b>	c) 16 bits
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**Q: B Fill in the blanks.**

- 1) **Compiler** is a language processor.
- 2) Assembly language is based on **mnemonic codes**.
- 3) **COBOL** is a high level language.
- 4) **Decimal** number system consists of 10 digits.
- 5) **SQL** is a fifth generation language.

**Q: C State True or False.**

- 1) Mnemonics are used in fourth level languages. **False**
- 2) Hexadecimal number system is based on 15 digits. **False**
- 3) Computer works on machine language. **True**
- 4) Interpreter is used to convert assembly language to machine language. **False**
- 5) Binary system is based on 0's and 1's. **True**

**Q: D Match the columns.**

**Column A**

- 1) Compiler
- 2) ADD
- 3) Postscript
- 4) Visual C++
- 5) Byte

**Column B**

- a. High-level language
- b. Fifth generation language.
- c. 8 bits
- d. Assembly language
- e. Language processor

**Ans: 1 – e, 2 – d, 3 – a, 4 – b, 5 - c**

**Q: E Short Answer questions.**

- 1) What is a compiler?

A compiler translates high level language program into machine language at once, and executes it if there is no error found

- 2) What is a low-level language?

Low level language is a language which is in the form of binary code and it is understood by the computer directly

- 3) What do you understand by number system?

Number system is a way of representing numbers in different symbols based on the type of system

- 4) What is the basic difference between assembler and interpreter?

An assembler translates programs which are written in assembly language into machine language whereas an interpreter converts and executes high level language code to machine language line by line

- 5) Machine language is based on which number system.

Machine language is based on binary number system.

## BRAIN TEASER:

A. Search for given words in the maze and encircle them.

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

### Word List

Assembler  
Mnemonics  
COBOL  
Octal

B. Give names of any four high-level languages.

1. C
2. C++
3. JAVA
4. Pascal

**KEYWORDS:**

- **Arithmetic operators:** Symbols used for basic mathematical operations.
- **Logical operators:** Symbols used for comparing data.
- **Functions:** Ready-made formulas

**EXERCISES:****Q: A Tick (✓) the correct options.**

- Which of the following is an arithmetic operator?
 

a) *	b) =	c) <=
------	------	-------
- In Excel, a formula or function starts with:
 

a) +	b) %	c) ≡
------	------	------
- Which of the following is a formula?
 

a) =A1+A5	b) %A1-A2	c) +=A1+A3
-----------	-----------	------------
- Which of these is an absolute cell reference?
 

a) A1+A@2	b) <u>\$A\$2</u>	c) @A2@
-----------	------------------	---------
- Which of the following is showing a range of cells?
 

a) A2 + B3	b) <u>A3:E3</u>	c) A2&C2
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**Q: B Fill in the blanks.**

- The SQRT function returns square root of a number.
- The TRIM function removes all the extra spaces in between words.
- The ABS function returns the absolute value of a number without its sign.
- The COUNT function counts number of numeric values in a selected range of cells.
- The TODAY function returns the current date.

**Q: C State True or False.**

- Excel treats your cell entry as text when you start an entry with equal sign. **False**
- You can enter a formula in the formula bar only. **False**
- Formulas can contain values only. **False**
- An absolute references does not change when copied. **True**
- The error ##### indicates that column is not wide enough to show the numbers. **True**

**Q: D Match the columns.**

**Column A**

- 1) MIN
- 2) SUM
- 3) LEFT
- 4) #REF!
- 5) LOWER

**Column B**

- a. To get total of numbers.
- b. To get smallest value from a range
- c. Indicates that a cell reference is not valid
- d. To get the text in lowercase
- e. To get leftmost characters from a string

**Ans: 1 – b, 2 – a, 3 – e, 4 – c, 5 – d**

**Q: E Short Answer questions.**

- 1) What is Excel?

Excel is spreadsheet software used for manipulating data

- 2) Define formulas. Mention the syntax to write a formula.

In Excel, calculations are performed on the data by using the formulas. A formula is an

Express on that always begins with= symbol.

Syntax: (Equal sign) = values operator values

- 3) What is a cell reference?

A cell reference refers to a cell on a worksheet and can be used in a formula so that Microsoft Office Excel can find the values or data that you want that formula to calculate

- 4) Give an example of relative reference and absolute reference.

Relative references: 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 you copy the formula =A1+B1 from row 1 to row 2, the formula will become =A2+B2.

Absolute reference: An absolute cell reference is a cell address that contains a dollar sign (\$) in the row or column coordinate, or both. When you enter a cell reference in a formula, Excel assumes it is a relative reference unless you change it to an absolute reference

- 5) List any four functions of Excel.

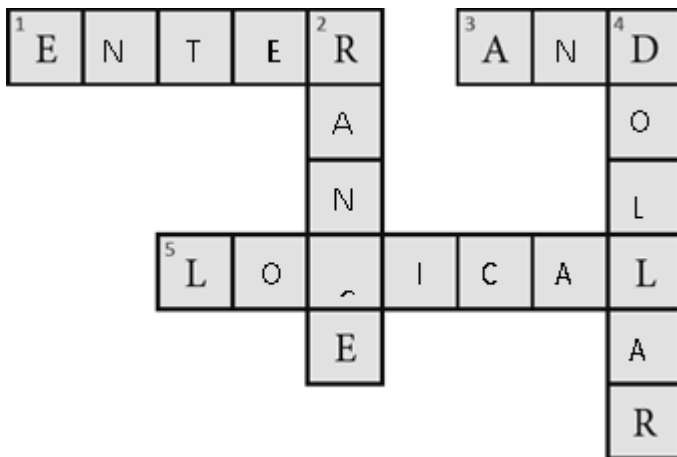
- i. SUM      ii. AVERAGE      iii. MAX      iv. MIN

## BRAIN TEASER:

**Q: A** Write the syntax and example to use these functions.

Function	Syntax	Example
1. AVERAGE	Average (val1 : val2)	Average (B1 : B5)
2. TRIM	Trim (Text)	Trim ("I am Raman")
3. TODAY	Today ()	Today ()
4. MAX	Max (Text)	Max (B1 : B5)
5. SIN	Sin (Val)	Sin (20)
6. MID	Mid (Range, Num-(nar))	Mid ("I am a good girl", 3, 4)

**: B** Solve the following crossword with the help of given clues.



**Hints:**

- 1) A key that completes your cell entry.
- 2) It is a term used for a block of cells.
- 3) It is a function that returns True if all the conditions return True.
- 4) It is the name of the sign that indicates the cell reference is an absolute reference.
- 5) These operators are used for comparing values.

## **WORKSHEET 1**

**Q: A Answer in one word.**

- 1) A programming language that the computer understands directly. **Machine Language**
- 2) It converts programs into machine language line by line. **Interpreter**
- 3) It is a bar in Excel that displays the formula. **Formula bar**
- 4) It is a type of cell reference that Excel uses by default. **Relative reference**
- 5) A number system that consists of 16 digits. **Hexadecimal number system**

**Q: B Describe the use of the following functions of Excel. Also mention an example of each.**

- 1) **EVEN**: It rounds the number up to the nearest integer. Negative numbers are adjusted away from zero. Example: EVEN (13) will give the result as 14.
- 2) **LOG**: It returns the logarithm of a number to the base that we specify. Example: LOG (12, 2) will give the result as 3.584963.
- 3) **ABS**: It returns the absolute value of a number without its sign. Example: ABS (-20) will return 20..
- 4) **SQRT**: It returns the square root of a number. Example: SQRT (144) will give the result as 12.
- 5) **OR**: It checks whether any of all the conditions are true or not. If anyone of all the conditions is true, it returns Val1. Otherwise returns Val2. Example: IF (OR(A1>10B1>5),"Correct", "Incorrect")
- 6) **LEFT**: It returns the first (left most) character or characters in a text string. Example: LEFT ("IAMAGOODBOY",5)will provide the result as I AM.

**Q: 3 Match the columns.**

**Column A**

- 1) Hexadecimal number system
- 2) Octal number system
- 3) Formula
- 4) Absolute cell reference
- 5) Relative cell reference

**Column B**

- a. Base of 8
- b. Base of 16
- c. C2:C7
- d. =A1+A2/A3
- e. C2+\$C\$7

**Ans: 1 – b, 2 – a, 3 – d, 4 – e, 5 – c**



**KEYWORDS:**

- **Chart** : Pictorial representation of data.
- **Data series**: Data values in a chart.

**ENRICH YOUR SELF:**

- If you are not sure which type of Chart to use, you can simply click on the Recommended Charts option in the Insert tab. It will suggest several different charts based on the source data.

**INFO:**

- The columns Chart should be used when order of the categories is not important.
- Drag any of the corner handles of a chart in /out to resize it diagonally or any of the side handles in /out to resize it in a direction.

**EXERCISE:****Q: A Tick (✓) the correct options.**

- 1) Which chart element is used to set the data values?
  - a) **Data points**
  - b) Data Table
  - c) Data Labels
- 2) The total region of a chart in which the chart is defined, is called:
  - a) **Chart area**
  - b) Data series
  - c) Plot area
- 3) A title which is given to an axis is called \_\_\_\_\_.
  - a) Chart title
  - b) Axis title
  - c) **Both a and b**
- 4) What term describes a chart that uses more than one data series?
  - a) **Combo chart**
  - b) 3-D Chart
  - c) Multiple charts
- 5) Which of the following chart is much similar to column chart?
  - a) **Bar chart**
  - b) Area chart
  - c) Line chart

**Q: B Fill in the blanks.**

- 1) The points that are plotted in the chart are called **data points**.
- 2) The title which is given to a chart is called **Chart title**.
- 3) The **vertical** axis of the a chart is known as Y-axis or value axis.
- 4) The area of the chart in which your data is plotted, is called **plot area**.
- 5) The **data series** are bars or slices that represent data values in a chart.

**Q: C State True or False.**

- 1) In Microsoft Excel, a chart is often called a graph. **True**
- 2) Excel provides only two Charts to represent the data. **False**
- 3) In XY Chart, all the points are connected to lines. **True**
- 4) The area Chart looks more attractive as compared to a line chart. **True**
- 5) You can use the combo chart to represent two or more data series. **True**

**Q : D Match the following columns.**

**Column A**

- 1) Pie chart
- 2) Combo chart
- 3) Bar chart
- 4) Chart area
- 5) Data series

**Column B**

- a. To provide clear view of highest or lowest values
- b. To show a percentage of the whole
- c. To show two or more data series.
- d. Bars or slices represent data values.
- e. Total region of a chart.

**Ans : 1- b, 2- c, 3 – a, 4 –e, 5 - d**

**Q : E Short answer questions.**

- 1) What is a chart?

Ans : A chart is a pictorial representation of data.

- 2) List out any four elements of a chart.

Ans: Axis title, legends, Plot area, Data points

- 3) Write the names of the tabs that appear when you select a chart.

Ans: Design tab, Layout tab and format tab

- 4) What is the difference between legends and gridlines?

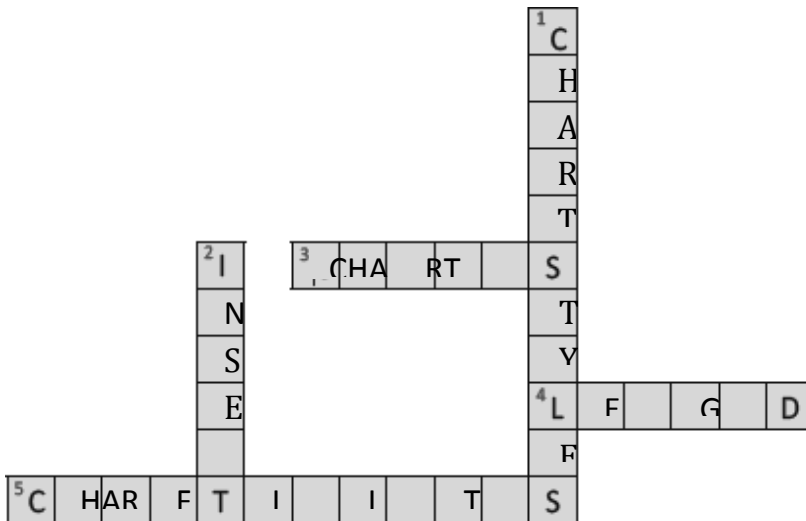
Ans: Gridlines appear automatically, showing how the data is organised into rows and columns whereas, legends display the plotted data series with a predefined symbol and the name of the series. It also assigned a unique color to each series.

- 5) Define pie chart?

Ans : A pie chart display data points of individual item as a percentage of the whole.

## BRAIN TEASER:

**Q: A** Solve the following crossword with the help of the given clues.



### Hints:

- 1) This button holds styles and color for the selected chart.
- 2) This is a tab that you click to access the charts.
- 3) This is a group that holds all types of charts available in Excel.
- 4) This is an element of a chart that shows data series in a unique color.
- 5) This button holds filter for the selected chart.

**Q: B** Identify the chart type from the give clue.

- |   |                  |
|---|------------------|
| 1) To compare multiple value using horizontal bars. | Bar chart        |
| 2) To show changes in stocks.                       | Line chart       |
| 3) To show percentage of whole.                     | Pie chart        |
| 4) To plot X and Y variables.                       | XY scatter chart |

**KEYWORDS:**

- **Sorting:** The process to set the data in an order.
- **Filtering:** To hide data temporarily in excel.
- **List range:** A range of cells on which you apply advanced filters.
- **Criteria range:** A range of cells that contains the criteria.
- **Goal seek:** To achieve a goal when you have what – if analysis in Excel.
- **Data Validation:** Used to apply restrictions on data entries in cells.

**ENRICH YOUR SELF:**

- If you want to undo the Flash Fill, click on the Flash Fill options icon appearing next to the cell and select Undo Flash Fill Revision.

**INFO:**

- Goal Seek is often used in finance, sales and forecasting scenarios.

**FAST FORWARD:**

- Press **Ctrl + Shift + L** keys to turn filters ON / Off.
- Press **Ctrl + Page up or Page down** to scroll between worksheets.

**EXERCISES:****Q: A Tick (✓) the correct options.**

- Which of these groups holds the Sort option of Excel?
 

a) Editing	b) <b><u>Sort and Filter</u></b>	c) Data Tools
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- Which of these tabs holds the Goal Seek option in Excel?
 

a) Insert	b) Home	c) <b><u>Data</u></b>
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- Which of these is used to restrict unwanted cell entries?
 

a) Filter	b) Sort	c) <b><u>Data Validation</u></b>
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- Which key do you use to group consecutive worksheets?
 

a) <b><u>Ctrl</u></b>	b) Shift	c) Alt
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- Which option is used to view data in a particular order?
 

a) <b><u>Sorting</u></b>	b) Data validation	c) Filtering
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**Q: B Fill in the blanks.**

- Filtering** is used to hide unwanted data.
- In the Advanced Filter dialog box, the **list range** defines a range of cells on which you apply filter.
- The **grouping** feature of Excel allow you to work on multiple worksheets at the same time.
- The **Goal Seek** feature of Excel helps in achieving a target value.

5) The Green square that appears at the bottom right corner of a selected cell is called **Auto fill**.

**Q: 3 State True or False.**

- 1) Sorting is applied to hide unwanted data temporarily. **False**
- 2) You cannot remove a filter from a worksheet after applying it. **False**
- 3) A criteria range is a range of cells that contains the criteria. **True**
- 4) Goal Seek is used for styling data. **False**
- 5) The AutoFill feature allows you to fill the data horizontally or vertically in cells. **True**

**Q: 4 Match the following columns.**

**Column A**

- 1) Sort & Filter group
- 2) Forecast group
- 3) Data Tools group
- 4) Ctrl key
- 5) Flash fill

**Column B**

- a. Flash Fill
- b. Data tab
- c. To group worksheets
- d. Flashes on repeated entry
- e. What – if analysis

**Ans: 1 – a, 2 – e, 3 – b, 4 – c, 5 – d**

**Q: 5 Short answer questions.**

- 1) What is sorting?

Ans: Sorting means arranging the data in an ascending order or a descending order.

- 2) What is filtering?

Ans: Filtering means displaying the data that meets certain conditions. It is a quick way to find and work on a specific set of data in a range of cells.

- 3) Describe the AutoFill feature.

Ans: Auto fill is used to fill the cells with data that follows a particular format.

- 4) How do you group multiple worksheets?

Ans: Press and hold down the CTRL key and click on the sheets tabs you want to group.

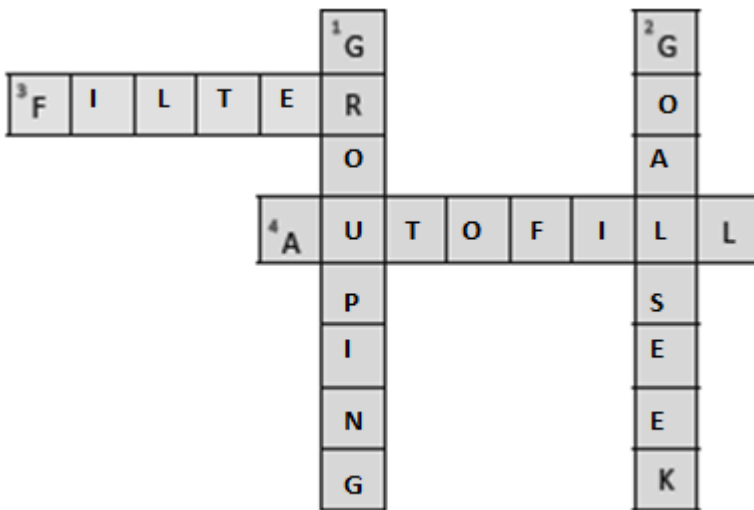
- 5) How do you remove filter from records?

Ans: To remove filters, click on the clear button in the sort & filter group of the Data tab or click on the filter option.

**BRAIN TEASER:**

Q	Features of Excel	Tab	Group
1.	Sort		
2.	Sort & Filter	D	SortandFilt
3.	Filter	at	erSortandF
4.	Flash Fill	a	ilterSortan
5.	Data Validation	D	dFilterData
		at	Tools

**Q: B** Solve the following crossword with the help of the given clues.



**Hints:**

- 1) It is an action performed to combine two or more worksheets.
- 2) It is used when what – if analysis is required.
- 3) It is a drop – down arrow that appears next to a column name.
- 4) It is used to fill cells horizontally or vertically.

**KEYWORDS:**

- **Vector graphic:** A type of graphic that can be scaled to any size.
- **Layers:** Transparent sheets stacked on top of one another.
- **Playhead:** A red vertical bar in the Timeline.
- **Frames:** A series of small rectangles in the Timeline window.

**ENRICH YOUR SELF:**

- To start with a new document, click on File – New. Select the Action Script 3.0, if not selected by default. Click on OK.
- To hide the Tools Panel, click on the double triangles on the top – right of the Tools Panel.

**INFO:**

- A vector graphic is a type of graphic that can be scaled to any size without losing clarity / quality.
- A black dot on the frame indicates that the frame is a keyframe.
- The Paint Bucket Tool fills only closed objects. If the object is not closed properly the color will not appear.

**FAST FORWARD:**

- **Ctrl + R :** to import an image to the stage
- **Ctrl + F3 :** to open Property Inspector Panel.

**EXERCISES:****Q: A Tick (✓) the correct options.**

- 1) Which of these is used to draw freehand graphics?
 

a) <b><u>Pencil</u></b>	b) Rectangle Tool	c) Paint Bucket Tool
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- 2) Which of these is a selection tool?
 

a) Rectangle	b) Subselection	c) <b><u>Free Transform</u></b>
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- 3) The grey area surrounded by the stage is called?
 

a) Stage	b) <b><u>Work area</u></b>	c) Frame
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- 4) Scaling is used to
 

a) <b><u>Resize the object</u></b>	b) Rotate the object	c) Flip the object
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- 5) What is the extension of a flash file?
 

a) .doc	b) <b><u>.fla</u></b>	c) .xls
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**Q: B Fill in the blanks.**

- 1) The **Text** Tool is used to insert text in the Flash file.
- 2) An area where you can create and edit objects is called **stage**.
- 3) A black dot on the frame indicates that the frame is a **keyframe**.

4) The **Free Transform** Tool is used to resize an object.

5) The **Lasso** is a freehand selection tool.

**Q: C State True or False.**

1) You can rotate an object by only 180 degrees. **False**

2) The Rectangle tool holds some other tools like Oval, Polystar, etc **True**

3) The Pen Tool allows you to create graphics by plotting anchor points. **True**

4) The Tools Panel contains only coloring tools. **False**

5) By default, Flash has only one layer. **True**

**Q: D Match the following columns.**

**Column A**

1) Paint Bucket Tool

2) Stage

3) Timeline

4) Frames

5) Property Inspector

**Column B**

a. Displays properties of the selected object

b. located at the bottom of the stage.

c. a series of small rectangles

d. fills closed shapes

e. a large white area

Ans: 1 – d, 2 – e, 3 – b, 4 – c, 5 – a

**Q: E Short answer questions.**

1) What is a vector image?

Ans: A Vector Image is an image that can be scaled to any size without losing clarity/quality

2) What are anchor points?

Ans: Anchor point is a small square which appears on the stage when you click using the Pen tool

3) What is the work area?

Ans: The gray area surrounding the stage is called work area where you can place the content and animate them

4) What is the use of Paint Bucket?

Ans: The Paint Bucket is used to fill enclosed areas and change the color of already painted areas

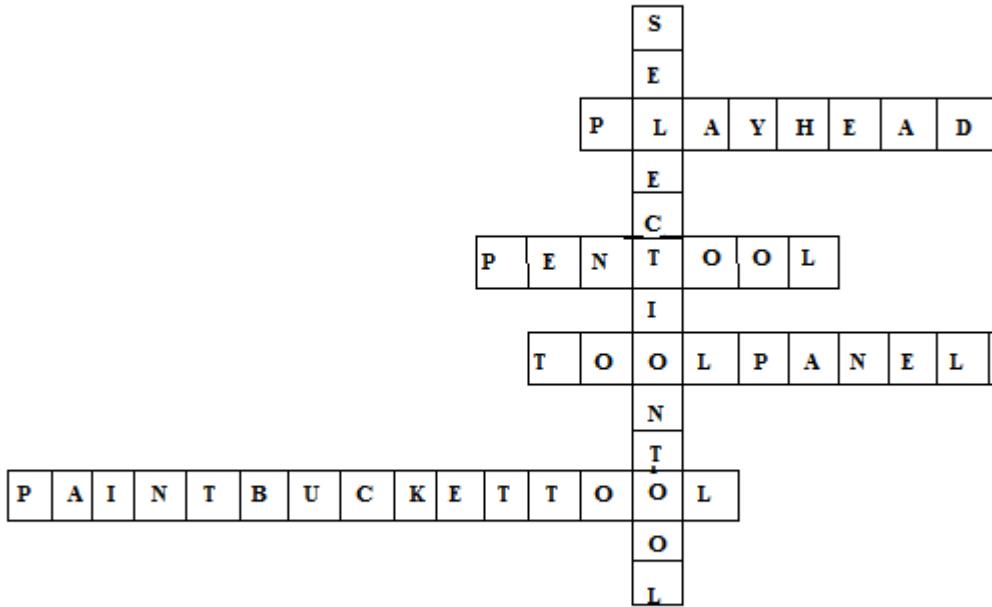
5) List different eraser modes?

Ans: Erase normal, erase fill, erase lines, erases selected fills, erase inside etc. are different eraser modes.



## BRAIN TEASER:

Q: A Solve the following crossword with the help of the given clues.



### Hints:

1. It selects an entire object rectangularly.
2. It moves left to right through the timeline.
3. It is used to adjust the angle and length of straight segments, and the slope of the curved segments.
4. It contains a set of tools that allows you to create and edit objects.
5. It fills solid colors, gradient fills and bitmap fills.

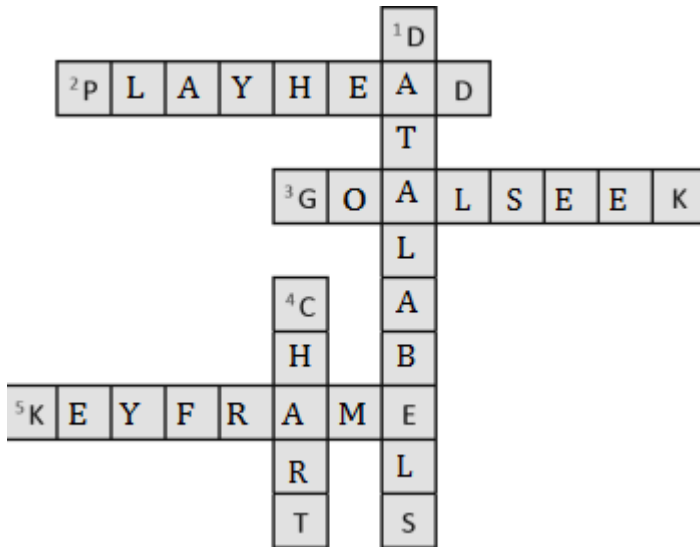
### B. Identify the following:

1. Rectangle tool
2. Eraser Tool
3. Free Transform tool
4. Paint bucket tool
5. Pen tool

## WORKSHEET 2

**Q: A Solve the following crossword with the help of given clues.**

- 1) These are used for identifying details of data points in a chart.
- 2) A red vertical bar that indicates the current frame on the stage.
- 3) It is a feature of Excel that helps in fixing data in one cell by changing data in another cell.
- 4) It is a pictorial representation of data.
- 5) It is a special type of frame where you define some change to an object's properties for an animation.



**Q: B Identify the types of charts and name them.**

1. Column chart
2. Pie chart
3. Line chart
4. Area chart