

# ANSWER KEY

Touchpad PLUS Ver 2.0

Class-7

## 1. Number System

LET'S PLUG-IN 

Do it yourself.

LET'S CATCH UP

1.

2	91	
2	45	1
2	22	1
2	11	0
2	5	1
2	2	1
	1	0

$(91)_{10} = (1011011)_2$

2.

1	0	0	0	.	1	0
$2^3$	$2^2$	$2^1$	$2^0$	.	$2^{-1}$	$2^{-2}$
$1 \times 2^3 + 0 + 0 + 0$				.	$2^{-1} + 0$	
$= 8$				.	$(\frac{1}{2}) = 0.5$	
$= 8.5$						

3.

$$\begin{array}{r} 10001 \\ - 1001 \\ \hline = 1000 \end{array}$$

TEST YOUR SKILLS 

- |            |        |                   |        |         |
|------------|--------|-------------------|--------|---------|
| 1. a. (ii) | b. (i) | c. (ii)           | d. (i) | e. (ii) |
| 2. a. T    | b. F   | c. T              | d. T   | e. T    |
| 3. a. 0    | b. 2   | c. decimal number |        |         |
| d. 10      | e. 8   | f. binary         |        |         |



4. a. The octal number system is used as a shorthand representation of long binary numbers.  
b. 4 bits make 1 nibble.  
c. Base of a number system represents the total number of digits in a number system.
5. a. A Number System is simply a method of counting. There are many number systems in existence. The digital computer represents all kinds of data and information like audio, graphics, video, text and numbers in binary form. The total number of digits used in a number system is called its base or radix.  
b. To convert a decimal number into a binary number, follow these steps:  
Step 1: Divide the decimal number by 2 (the base of the binary number system).  
Step 2: Note down the quotient and the remainder.  
Step 3: Divide the quotient obtained again by 2 and note down the resulting quotient and remainder.  
Step 4: Repeat the procedure till you reach a quotient less than 2.  
Step 5: List the last quotient and all the remainders (moving from bottom to top). You will get your binary number.

6.

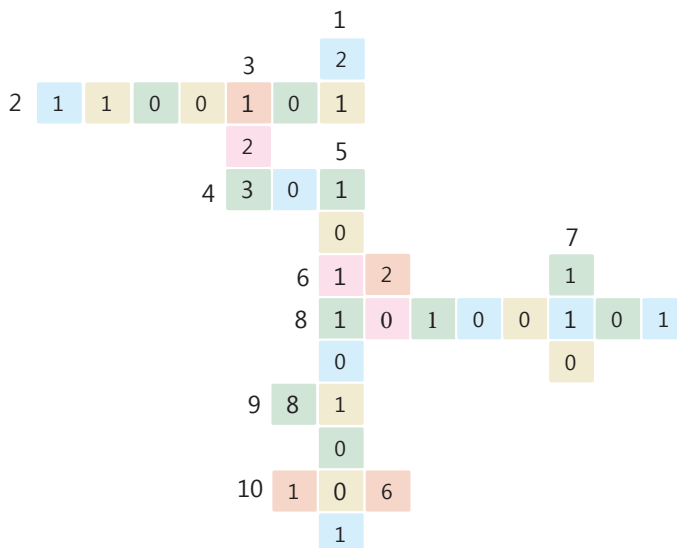
X	Y	X - Y
0	0	$0 - 0 = 0$
0	1	$0 - 1 = 1$ (borrow 1, so that $10 - 1 = 1$ )
1	0	$1 - 0 = 1$
1	1	$1 - 1 = 0$

## FUN ZONE



### Let's Solve

1.





Do it yourself.



1. 1. 23.375
2. 011001
3. a. 01101    b. 10000    c. 01110    d. 011110    e. 0101110
4. a. 10011    b. 1100010    c. 1001011    d. 100101    e. 110110

## 2. Charts in Excel 2016



1. Deepak
2. Anurag



1. Scatter chart
2. Area chart
3. Bar chart
4. Pie chart



1. a. (ii)    b. (ii)    c. (ii)    d. (ii)    e. (iii)
2. a. F    b. F    c. T    d. T    e. F
3. a. Chart    b. Gridlines    c. Legend    d. Column    e. Pie
4. a. (ii)    b. (iii)    c. (iv)    d. (i)
5. a. A chart is an effective way to display data in a pictorial form. It makes it easier to draw comparison and analyse the growth, relationship and trends among the values in a table.  
b. Legend is a key which shows the meanings of symbols and colours used in the chart.  
c. Bar chart displays the data in the form of long rectangular rods, also called bars.  
d. Area chart is used to display the quantitative magnitude of the data graphically.
6. a. **Line Chart:** It is used to show trends over a period of time. It is similar to plotting a graph on a graph paper with its values on X and Y axis. It uses connecting dots to display trends of a data over a given period of time. Whereas Scatter charts are also known as XY scatter plot charts. They show the correlation between the two sets of values. The x and y axes are used to represent the data plots on the chart.

b. The five components of charts are as follows:

**Data Series:** It is related to the set of values. It is represented by the bars or slices that represent the data values.

**Data Labels:** It includes data values, category name, series name, legend keys and values from cells.

**Gridlines:** These can be either horizontal or vertical lines depending on the selected chart type. It makes it easier to read and understand the values.

**Legend:** It is a key which shows the meanings of symbols and colours used in the chart.

**Chart Area:** It includes all the objects and elements of a chart.

c. Follow these steps to change the chart type:

Step 1: Select the chart.

Step 2: Click on the Change Chart Type command from Type group under the Design tab.

Step 3: Click on Line from the left panel of the Change Chart Type dialog box.

Step 4: Click on Line with Markers option from the right panel under Line group.

The chart will change to Line Chart.

## FUN ZONE



### LET'S SOLVE

1. Pie chart

2.



### LET'S EXPLORE

Do it yourself.

## TECH PRACTICE

Do it yourself.



Touchpad PLUS (Version 2.0)-VII (Answer Key)

### 3. Advanced Features of Excel

#### LET'S PLUG-IN

1. F                                      2. T                                      3. T                                      4. F

#### LET'S CATCH UP

Sorting refers to the process of arranging data in ascending or descending manner. It helps us to obtain data quickly and work efficiently.

#### TEST YOUR SKILLS

1. a. (i)                                      b. (ii)                                      c. (ii)                                      d. (ii)                                      e. (ii)
2. a. F                                      b. F                                      c. F                                      d. T                                      e. F
3. a. Sorting data means to organise the data in ascending or descending order.  
b. To remove filters, click on the filter command in the Data tab.  
c. Filter command is used to hide unimportant data.
4. a. Sorting data refers to the process of organizing data in ascending or descending order. Whereas, filtering data refers to remove or hide the unimportant data to emphasise on the important information.  
b. Conditional formatting can be applied on the following criteria:  
    i. Highlight Cells Rules                                      ii. Top/Bottom Rules                                      iii. Data bars  
    iv. Color Scales                                      v. Icon sets  
c. To use Custom Sorting, follow these steps:  
    Step 1: Select the range of columns to be sorted.  
    Step 2: Click on the Sort & Filter command from the Editing group under Home tab. A dropdown list appears.  
    Step 3: Click on the Custom Sort option from the drop-down list.  
    The Sort dialog box opens.  
    Step 4: Check My data has headers checkbox, if the selected columns have a heading at the top.  
    Step 5: Click on the Sort by box and select the column header according to which you want to sort the data. In this case, we have selected Client Name header.  
    Step 6: Click on the Sort On box and select Cell Values option.  
    Step 7: Click on the Order box and select the A to Z or Z to A option. In This case, we have selected A to Z option.  
    Step 8: Click on the Add Level button at the top of the Sort dialog box to add another column to sort. In this case, we have added Amount Billed column.  
    Step 9: Click on the OK button.

d. To apply conditional formatting to a series of data, follow these steps:

Step 1: Select the data to which formatting is to be applied.

Step 2: Click on the Conditional Formatting command from Styles group under Home tab. A drop-down list appears. This list shows various criteria.

Step 3: Select the desired conditional formatting. In this case, we have selected the Orange Data Bar option under the Data Bars category. The selected conditional formatting is applied to the selected cell range.

## FUN ZONE



### LET'S SOLVE

1. Sorting
2. a. Editing                      b. Filter                      c. Sorting                      d. Conditional Formatting  
e. Sort A to Z (text). Sort Smallest to Largest (numbers).



### LET'S EXPLORE

Do it yourself.

## Periodic Assessment-1

(Based on chapters 1 to 3)

- A.**
1. The rightmost digit before the fractional part of a binary number is known as LSD.
  2. Hexadecimal number system consists of 16 digits, 0 to 9 and A to F.
  3. In BEDMAS rule, E stands for exponents.
  4. \$ sign can be used for absolute and mixed referencing.
  5. Conditional Formatting command is present under Home tab.
- B.**
1. It is commonly used to display the data in the form of vertical bars. It is used to show the changes in data over a period of time or comparison among different data items. This chart can be used to depict and compare the results of your friends.
  2. It is a circular chart divided into sectors where each sector shows the relative size of each value. It always shows only one data series. You can use pie chart to explain the distribution of the various gasses in the atmosphere.
  3. It is used to display the quantitative magnitude of the data graphically. You can use this chart to show the level of depletion of ozone layer in the atmosphere.
  4. Bar chart displays the data in the form of long rectangular rods also called bars. This chart can be used to differentiate the individual element of any comparison. You can use this chart to show Cost Price and Selling Price of different items.



5. They show the correlations between the two sets of values. This chart can be used to show the relation between the degradation of soil quality due to the increase in population.

C.	1. Decimal	Octal	Scientific	Binary	
	2. A	C	F	H	
	3. Absolute	Mixed	Relative	Particular	
	4. Today	Year	Average	Day	
D.	1. c.	2. e.	3. b.	4. a.	5. d.

## 4. Looping in Small Basic

### Let's PLUG-IN

Do it your self

### LET'S CATCH UP

The ':' should be removed. The correct code is

i = 50

While(i >= 1)

TextWindow.WriteLine(i)

i = i - 1

EndWhile

### TEST YOUR SKILLS

- (i)
  - (i)
  - (ii)
  - (i)
  - (ii)
- While....EndWhile
  - Startnumber, counter
  - Statements
  - counter
  - infinite
- T
  - F
  - F
  - T
  - F
- The loop will run 15 times.
  - sum = 225
  - Infinite loop is a type of loop that never ends. It can happen because of the incorrect usage of logical condition or the loop control may not be able to reach the condition. Here is an example of infinite loop.  
number = 1

While (number < 10)

TextWindow.WriteLine(number)

EndWhile

(iv) The basic syntax of the For.....EndFor statement is as follows:

For counter = startNumber To endNumber

Statements to repeat

Increase or decrease the counter variable

EndFor

Where

- the counter is a variable that keeps count of the number of times the instructions inside the loop have been executed.
- the startNumber is the starting number or value of the loop.
- the endNumber is the total number of times the loop must run.

5. a. Looping refers to the process of repeating a set of statements repeatedly to accomplish a task. Small Basic provides two types of looping statements—For...EndFor and While...EndWhile.

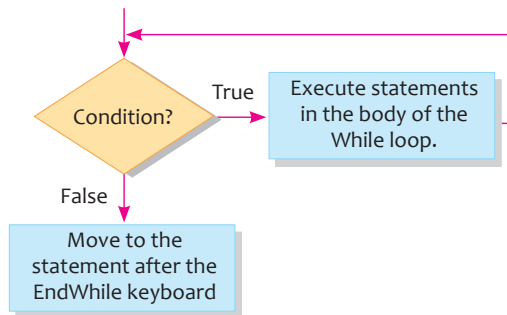
b. The basic syntax of the While...EndWhile loop is as follows:

While (condition is true)

Statements to Repeat

EndWhile

The flowchart of While...EndWhile is shown below:



## FUN ZONE



### LET'S SOLVE

- a. For n = 1 To 22 Step 2  
TextWindow.WriteLine(n + " ")  
EndFor
- b. For....EndFor loop or While...EndWhile





2.
  - a. I had 1 slice of pizza.  
I had 2 slices of pizza.  
I had 3 slices of pizza.  
I had 4 slices of pizza.  
I had 5 slices of pizza.  
I had 6 slices of pizza.  
I had 7 slices of pizza.  
I had 8 slices of pizza.  
I had 9 slices of pizza.  
I had 10 slices of pizza.
  - b. I had 1 slices of pizza.  
I had 2 slices of pizza.  
I had 3 slices of pizza.  
I had 4 slices of pizza.  
I had 5 slices of pizza.  
I had 6 slices of pizza.  
I had 7 slices of pizza.  
I had 8 slices of pizza.  
I had 9 slices of pizza.  
I had 10 slices of pizza.
  - c. sum = 190
  - d. 1  
4  
7



### LET'S EXPLORE

Do it yourself.

### TECH PRACTICE

1. For a = 1 To 41 Step 3  
  TextWindow.WriteLine(a + " ")  
EndFor
2. Do it yourself.
3. TextWindow.WriteLine("Enter the number: ")  
  n = TextWindow.ReadNumber()  
  For A = 1 To 10  
    f = n\*A  
    TextWindow.WriteLine(n+" X "+A+" = "+f)  
  EndFor

```

4. TextWindow.WriteLine("Odd numbers from 1 to 30")
   n=1
   Sum_of_odd=0
   While(n<31)
   TextWindow.WriteLine(n)
   Sum_of_odd=Sum_of_odd+n
   n=n+2
   EndWhile
   TextWindow.WriteLine("Sum of all the odd numbers from 1 to 30 is:"+Sum_of_odd)
   TextWindow.WriteLine("Even numbers from 1 to 30")
   m=2
   S=0
   While(m<31)
   TextWindow.WriteLine(m)
   S=S+m
   m=m+2
   EndWhile
   TextWindow.WriteLine("Sum of all the even numbers from 1 to 30 is:"+S)
5. TextWindow.WriteLine("Enter the number: ")
   n = TextWindow.ReadNumber()
   t1 = 0
   t2 = 1
   nextTerm = 0
   nextTerm = t1 + t2
   TextWindow.Write(t1+" ")
   TextWindow.Write(t2+" ")
   While(a < n-2)
       Textwindow.Write(nextTerm+" ")
       t1 = t2
       t2 = nextTerm
       nextTerm = t1 + t2
       a = a + 1
   EndWhile

```

## 5. Graphics in Small Basic

### Let's PLUG-IN

1. F                                      2. T                                      3. T



## LET'S CATCH UP

1. To draw a line
2. To draw a triangle
3. To display a message
4. To clear the screen
5. To write text on the graphics window

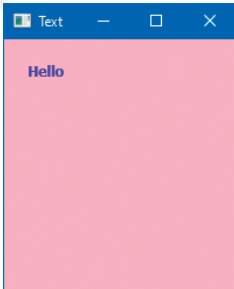
## TEST YOUR SKILLS

1. a. (i)                      b. (i)                      c. (i)                      d. (i)                      e. (iv)  
f. (iii)
2. a. DrawText()            b. MouseUp            c. Tahoma            d. PenColor            e. Title
3. a. T                      b. F                      c. F                      d. T                      e. T
4. a. Small Basic has a Graphics Window where you can draw colorful objects, lines, shapes and text. Graphics Window is divided into pixels.  
b. GraphicsWindow.PenColor="Green".  
c. It sets the width of the graphics window.
5. a. **MouseDown:** This property raises an event when the mouse button is clicked.  
**MouseMove:** This property raises an event when the mouse is moved around.  
**MouseUp:** This property raises an event when the mouse button is released.  
b. The 5 properties of the graphics windows are as follows.
  - i. **BrushColor:** This property sets the brush colour to be used to fill shapes drawn on the Graphics Window.
  - ii. **CanResize:** This property specifies whether the user can resize the graphics window or not.
  - iii. **FontName:** This property sets the name of the font to use when drawing text on the Graphics Window.
  - iv. **FontSize:** This property sets the font size used to display text on the Graphics Window.
  - v. **Title:** This property sets the Graphics window title.

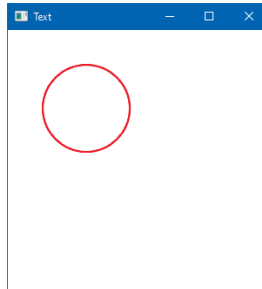


## LET'S SOLVE

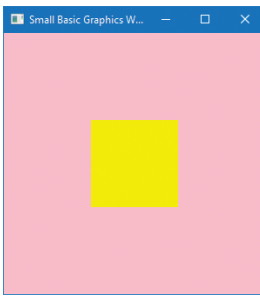
1.



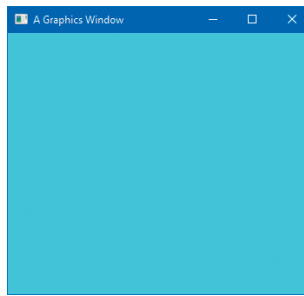
2.



3.



4.



## TECH PRACTICE

1. `GraphicsWindow.BackgroundColor = "yellow"`  
`GraphicsWindow.Title = "My Graphics Window"`  
`GraphicsWindow.Width = "620"`  
`GraphicsWindow.Height = "400"`
2. `GraphicsWindow.BrushColor = "Red"`  
`GraphicsWindow.FillRectangle(20, 20, 300, 60)`  
`GraphicsWindow.BrushColor = "Cyan"`  
`GraphicsWindow.FillEllipse(60, 100, 300, 60)`  
`GraphicsWindow.BrushColor = "yellow"`  
`GraphicsWindow.FillEllipse(180, 180, 150, 150)`
3. `GraphicsWindow.DrawLine(20, 20 20, 180)`  
`GraphicsWindow.PenColor = "Red"`  
`GraphicsWindow.DrawLine(40, 20 40, 180)`  
`GraphicsWindow.PenColor = "Blue"`  
`GraphicsWindow.DrawLine(60, 20 60, 180)`  
`GraphicsWindow.PenColor = "Green"`



- ```
GraphicsWindow.DrawLine(80, 20 80, 180)
GraphicsWindow.PenColor = "Cyan"
GraphicsWindow.DrawLine(100, 20 100, 180)
GraphicsWindow.PenColor = "Yellow"
GraphicsWindow.DrawLine(120, 20 120, 180)
```
4. 

```
GraphicsWindow.BackgroundColor = "Red"
GraphicsWindow.BrushColor = "Blue"
GraphicsWindow.FontSize = 50
GraphicsWindow.DrawText(20,40, "Your Name")
```
  5. Do it yourself.

## Periodic Assessment–2

(Based on chapters 4 & 5)

- A.**

```
GraphicsWindow.PenColor = "Green"
GraphicsWindow.FillTriangle(340, 50, 300, 150, 380, 150)
GraphicsWindow.FillTriangle(200, 180, 300, 150, 300, 230)
GraphicsWindow.FillTriangle(480, 180, 380, 150, 380, 230)
GraphicsWindow.FillTriangle(340, 340, 300, 230, 380, 230)
GraphicsWindow.FillRectangle(300, 150, 80, 80)
```
- B.**
  1. "Graphics Window" text in the title bar
  2. The output will be drawn in black color.
  3. A rectangle of breadth of 30 and length 40 will be drawn at coordinates x=10 and y=20.
  4. The fill color will be hot pink.
  5. A rectangle of length=40 and breadth=30 will be drawn at coordinates x=10 and y=20. It will then be filled with a colour chosen.
- C.**

```
TextWindow.WriteLine("Enter a number: ")
number = TextWindow.ReadNumber()
i = 10
While(i>=1)
    mul = number*i
    TextWindow.WriteLine(number + "*" + i + "=" + mul)
    i = i - 1
EndWhile
```
- D.**

```
TextWindow.WriteLine("Enter the distance in KM: ")
dist = TextWindow.Read()
m = dist*1000
TextWindow.WriteLine("The Distance in meters is: "+m+" m.")
```

# Test Sheet–1

(Based on chapters 1 to 5)

- A.** 1. (ii)                      2. (i)                      3. (i)                      4. (i)                      5. (i)  
6. (ii)                      7. (ii)                      8. (i)                      9. (iii)
- B.** 1. T                      2. T                      3. T                      4. T                      5. F  
6. T                      7. F
- C.** 1. Function                      2. equal                      3. 0                      4. 2                      5. Excel  
6. Filter                      7. Title                      8. statements
- D.** 1. Sorting data means to organise the data in ascending or descending order.  
2. To remove filters, click on the filter command in the Data tab.  
3. The octal number system is used as a shorthand representation of long binary numbers.  
4. Graphics Window is where you can draw colorful objects, lines, shapes and text. It is the foundation to build projects in Small Basic.
- E.** 1. To apply conditional formatting to a series of data, follow these steps:  
Step 1: Select the data to which formatting is to be applied.  
Step 2: Click on the Conditional Formatting command from Styles group under Home tab. A drop-down list appears. This list shows various criteria.  
Step 3: Select the desired conditional formatting. In this case, we have selected the Orange Data Bar option under the Data Bars category. The selected conditional formatting is applied to the selected cell range.
2. Conditional formatting can be applied on the following criteria:  
i. Highlight Cells Rules      ii. Top/Bottom Rules      iii. Data bars  
iv. Color Scales                      v. Icon sets
3. In binary subtraction, binary number of lower value is subtracted from the binary number of higher value. The following table explains the subtraction of digit Y from digit X. If Y is greater than X, then 1 is borrowed from the next position. When the binary digit 0 borrows 1 from the next most significant digit, it becomes 10.
4. Looping refers to the process of repeating a set of statements repeatedly to accomplish a task. Small Basic provides two types of looping statements—For...EndFor and While...EndWhile.
5. The different properties available in Graphics Window are as follows:

| Property Name   | Syntax                         | Description                                                                                         |
|-----------------|--------------------------------|-----------------------------------------------------------------------------------------------------|
| BackgroundColor | GraphicsWindow.BackgroundColor | It sets the Background color of the Graphics Window.                                                |
| BrushColor      | GraphicsWindow.BrushColor      | It sets the brush color to be used to fill shapes drawn on the Graphics Window.                     |
| CanResize       | GraphicsWindow.CanResize       | It specifies whether the user can resize the Graphics Window or not.                                |
| FontBold        | GraphicsWindow.FontBold        | It determines whether the font to be used while drawing text on the Graphics Window is bold or not. |

|            |                           |                                                                                                       |
|------------|---------------------------|-------------------------------------------------------------------------------------------------------|
| FontItalic | GraphicsWindow.FontItalic | It determines whether the font to be used while drawing text on the Graphics Window is italic or not. |
|------------|---------------------------|-------------------------------------------------------------------------------------------------------|

6. Small Basic allows you to add interactivity in your Small Basic programs by using events. Small Basic provides two types of events which are: keyboard events and mouse events. The keyboard events perform an action when a key is pressed or released. On the other hand mouse events perform an action when the mouse button is pressed or released.
7. MouseDown and MouseMove.

## 6. More On Animate CC

### Let's PLUG-IN

1. T
2. F
3. T
4. T

### LET'S CATCH UP

1. Three
2. Frame 1 of Layer 1
3. Frames per second
4. Movie Clip Symbol

### TEST YOUR SKILLS

1. a. (ii)                      b. (iii)                      c. (iii)                      d. (iii)                      e. (ii)
2. a. Masking                      b. Layers                      c. Properties                      d. Break Apart
3. a. T                      b. T                      c. F                      d. F                      e. T
4. a. The movement of an object in-between the frames is called **Tween**.  
b. i. Motion Tween    ii. Shape Tween    iii. Classic Tween  
c. Classic Tween is used for transition purpose. Whereas, Motion Tween uses symbols to create movement, size, rotation changes, fades, etc.
5. a. **Layers** are sheets on which you place your drawings, animations and objects. They allow you to keep the elements of the animation separate. These are similar to transparent sheets, stacked one on top of the other.  
b. Perform the following steps to format text in Animate:  
Step 1: Click on the Text Tool from the Tools panel.  
Step 2: Under the Properties panel choose the font size, color, style, etc.  
Step 3: Type the text "ANIMATE" on the stage.  
We can individually split the text with the Break Apart option.  
Step 4: Select the text with Selection Tool.

Step 5: Click on the Modify → Break Apart option from the menu bar.

Step 6: Select the individual character and change the color.

## FUN ZONE



### LET'S SOLVE

1. a. Break Apart      b. Shape Tween

2.

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



### LET'S EXPLORE

Do it yourself.

### TECH PRACTICE

Do it yourself.

## 7. Introduction to Python

### LET'S PLUG-IN

1. T

2. T

3. F

4. T

### LET'S CATCH UP

Roll no = 201

Student Name = "Chirag"

Section = 'A'





## TEST YOUR SKILLS

1. a. (ii)                      b. (i)                      c. (iv)                      d. (iv)                      e. (iv)
2. a. Guido van Rossum                      b. assignment                      c. string                      d. input()  
e. false
3. a. T                      b. F                      c. F                      d. T                      e. T
4. a. The value 8 is stored in the memory location named a.  
b. Variables are memory reference points where we store values which can be accessed or changed later.  
c. A data type specifies the type of value a variable can contains.  
d. Precedence of operators determines the order in which the operators are executed.  
e. Integrated Development and Learning Environment.
5. a. Following are the relational operators provided by Python:  
    ==    Equal to  
    !=    Not equal  
    >    Greater than  
    <    Less than  
    >=    Greater than or equal to  
    <=    Less than or equal to  
    For example, == operator: It checks if the values of two operands are equal or not. If yes, then the condition becomes true.  
b. Comments in Python can be used to explain parts of the code. It can also be used to hide the code as well. Comments enable us to understand the way a program works. In python, any statement starting with # symbol is known as a comment.  
    **Single Line Comment:** In case, a user wants to specify a single line comment, then comment must start with the symbol #.  
    **Multiple-line Comment:** Python does not have a syntax for multiline comments. To add a multiple line comment, you could insert a # for each line.  
c. Modes of Python IDLE are: Interactive Mode and Script Mode.  
    Interactive Mode is a command line shell which gives immediate result for each command. The Script Mode saves the commands entered by the user in the form of a program.  
d. (i) Arithmetic operators perform arithmetic operations between two operands.  
    Example (x=7 and y=3) Output 10  
    (ii) Comments in Python can be used to explain parts of the code. It can also be used to hide the code as well.  
    (iii) A data type specifies the type of value a variable can contains.  
    (iv) Variables are memory reference points where we store values which can be accessed or changed later.  
    (v) Logical operators are used to evaluate and decide.

- e. (i) AND returns true, if both operands are true.  
Example: (x < 5) and (x < 10). Output: TRUE.  
OR returns true, if one of the operands is true.  
Example: (x < 5) or (x < 2). Output: TRUE.
- (ii) Modulus Operator divides left hand operand by right hand operand and returns remainder.  
Example: x % y. Output: 1  
Division Operator divides left hand operand by right hand operand.  
Example: x / y. Output: 3.
- (iii) In case, a user wants to specify a single line comment, then comment must start with the symbol #.

Example:

**Program:**

```
# printing a string
print("Hello world")
```

**Output:**

Hello World

Python does not have a syntax for multiline comments. To add a multiple line comment, you could insert a # for each line.

Example:

**Program :**

```
# printing a string
#print five names
print("Hello World")
print("Rachna")
print("Sambhav")
print("Akshat")
print("Tushar")
```

**Output :**

Hello World  
Rachna  
Sambhav  
Akshat  
Tushar

## FUN ZONE



### LET'S SOLVE

1. 2.0

2. 12

3. 10 20 30

4. 6

5. 4



### LET'S EXPLORE

Do it yourself.



Do it yourself.



## 8. Conditional Statements in Python

### LET'S PLUG-IN

1. True

2. 84

3. 8 2 20

4. True

5. 22

### LET'S CATCH UP

```
age = 17
```

```
if(age > 18):
```

```
    print('You are eligible to vote')
```

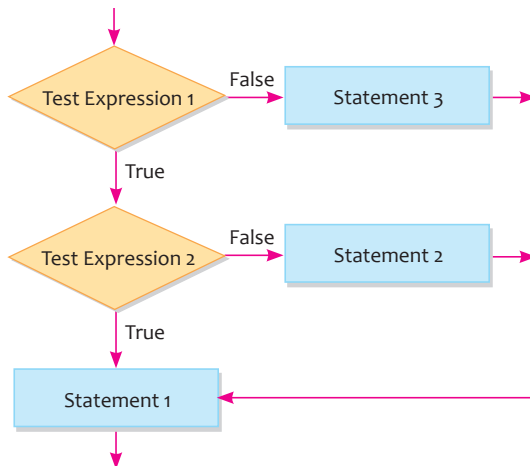
```
else:
```

```
    print('Not eligible to vote')
```

### TEST YOUR SKILLS

1.    a. (iii)                      b. (i)                      c. (iv)                      d. (ii)                      e. (iii)
2.    a. if                      b. true                      c. false                      d. else
3.    a. F                      b. F                      c. F                      d. T                      e. T
4.    a. Decision making in Python is done by called conditional statements which decide the flow of program execution.  
      b. if (Test Expressions\_1):  
          Indented block 1  
      elif (Test Expression\_2):  
          Indented block 2  
      elif (Test Expression\_3):  
          Indented block 3  
      else:  
          Indented block  
      c. if (Test Expression):  
          Indented statement block  
      # if block ends here

5. a.



b. `um = float(input("Enter the distance measured in centimeter : "))`  
`""" 1 inch = 2.54 centimeters"""`  
`inc = num/2.54`  
`print("Distance in inch : ", inc)`

## FUN ZONE



### Let's SOLVE

1. First number is greater than second number.
2. Positive number.
3. Above ten and also about 20!
4. b is not greater than a.



### Let's EXPLORE

Do it yourself.

## TECH PRACTICE

1. `year = int(input("Please Enter the Year Number you wish: "))`  
`if (( year%400 == 0)or (( year%4 == 0 ) and ( year%100 != 0))):`  
`print("%d is a Leap Year" %year)`  
`else:`  
`print("%d is Not the Leap Year" %year)`



2. Do yourself
3. 

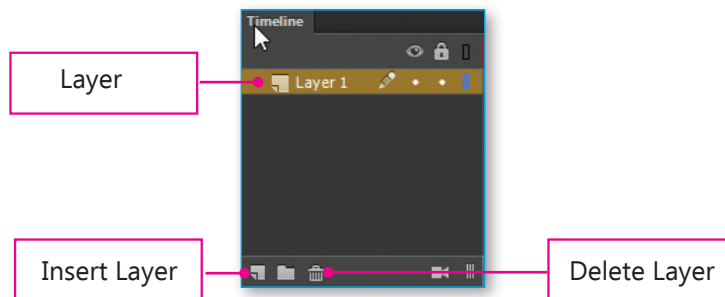
```
ch = input("Enter a character: ")
if(ch=='A' or ch=='a' or ch=='E' or ch=='e' or ch=='I'
or ch=='i' or ch=='O' or ch=='o' or ch=='U' or ch=='u'):
    print(ch, "is a Vowel")
else:
    print(ch, "is a Consonant")
```
4. 

```
num = float(input("Enter a number: "))
if num >= 0:
    if num == 0:
        print("Zero")
    else:
        print("Positive number")
else:
    print("Negative number")
```
5. Do it yourself.

## Periodic Assessment–3

(Based on chapters 6 to 8)

A.



- B. 1. Ctrl + L      2. F8      3. Ctrl + Enter      4. F5
- C. 1. Variables are used to store values which can be changed later.  
2. Keywords are the reserved words. They are used to define syntax and structure.
- D. 1. if...elif...else      2. if...elif...else      3. if...else      4. input()
- E. Congratulations!!!  
You have passed the exam

## 9. More on HTML

### Let's PLUG-IN

1. Notepad    2. h1 to h6    3. bgcolor

## LET'S CATCH UP

1. `<p align="left"> Animation`
2. `<hr width="550">`
3. `</title> Example of Paragraph<title>`
4. `<hr width="-80%">`

## TEST YOUR SKILLS

1. a. (ii)                      b. (iv)                      c. (iii)                      d. (iii)                      e. (i)
2. a. markup                      b. `<B>`                      c. `<P>`                      d. `<SUB>`                      e. `<SUP>`
3. a. F                      b. F                      c. F                      d. F                      e. F
4. a. HR tag is used when you want to divide your web page into different sections.  
b. The `<BR>` tag is used to break lines of text.  
c. The `<SUP>` tag is frequently used to write algebraic formulas.
5. a. HR tag is used when you want to divide your web page into different sections.  
The `<HR>` tag has following attributes:
  - WIDTH: It displays the horizontal ruler of the specified width in pixels or in percentage.  
`<hr width="550">` or `<hr width="80%">`
  - SIZE: It controls the height or the thickness of the horizontal ruler.  
`<hr size="4">`
  - COLOR: It is used to apply the background color.  
`<hr color="pink">`
  - ALIGN: It is used to align the horizontal ruler left, right and center.  
`<hr align="right">`
- b. HTML provides the `<FONT>` tag to change the certain properties such as font size, face and colour of a block of text on a web page. `<FONT>` tag provides three attributes which you can use in the following way:
  1. FACE: It allows you to set the font family such as Times New Roman, Verdana.  
`<font face="Times New Roman"> Animation </p>`
  2. SIZE: It allows you to set the font size.  
`<font size="4"> Animation </p>`
  3. COLOR: It allows you to set the font color.  
`<font color="green"> Animation </p>`
- c. (i) `<SUB>` tag is used to turn the enclosed text into a subscript. For example, H<sub>2</sub>O is coded as `H<sub>2</sub>O`  
`<SUP>` tag is used to turn the enclosed text into a superscript. For example, E=mc<sup>2</sup> is coded as `E=mc<sup>2</sup>`
- (ii) The Bold tag is written as `<B>`. This tag is used to give bold effect to your text. On the other hand, the Italic tag is written as `<I>`. This tag is used to give italic effect to your text.



**LET'S SOLVE**

1. `<html> <title> <body bgcolor="green"> <h1 align=center> <hr> <p> <font face> <sup>`



**LET'S EXPLORE**

Do it yourself.



**TECH PRACTICE**

Do it yourself.

## 10. Internet Services

**LET'S PLUG-IN**



Facebook



Twitter



Instagram



YouTube

**TEST YOUR SKILLS**



1. a. (i)                      b. (i)                      c. (iv)                      d. (iv)                      e. (ii)
2. a. T                      b. T                      c. F                      d. T                      e. T  
f. F                      g. F
3. a. cash on delivery                      b. communicate, information  
c. facebook                      d. blogger                      e. questions                      f. cloud storage
4. a. Facebook, Twitter and Instagram.  
b. Net Banking and E-Wallet.  
c. You are not allowed to post political content and poorly phrased questions.  
d. This feature on Facebook allows the user to find all his active Facebook logins from any device.  
e. (i) Your sensitive data might be at risk from hackers.  
(ii) Some people might face issues like data loss.

5. a. Blog is a short form of WEBLOG, which refers to a website where new information about any topic is updated regularly. The latest posts appear first. The term Weblog was coined by an American blogger named Jorn Barger in 1997. It is like a journal where you write about your life and thoughts types are travel blog, fashion blog etc.
- b. The key features of Skype are as follows:
- Skype translates the conversation in real-time if the person is talking in a different language.
  - It is a safe way to have conversation with people without any interruption.
  - You can share your screen to train someone.
  - It has Live Subtitles option. This helps a hearing-impaired person to keep up with the call.
- c. 1. It fetches the updated web feed.  
2. It provide newly published information from the website/blog directly to you.  
3. It saves your time.
- d. Website is a collection of static pages such as home page, contact page, profile page. On the other hand, blog contains both pages and posts but mostly posts. Websites usually don't change regularly as blogs do.

## FUN ZONE



### LET'S SOLVE

1. a. Cloud Computing      b. Facebook
- 2.

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





Do it yourself.



Do it yourself.

## Periodic Assessment–4

(Based on chapters 9 & 10)

- A.** `<body bgcolor="red">`  
`<p>` and not `</p>`
- B.** 1. Google Web Designer      2. Google Pay      3. ATM  
4. LinkedIn      5. www.blogger.com
- C.** 1. OneDrive is a cloud file storage service. This cloud-based service gives the users a space to store and share documents.  
2. We can directly use the bank account to make payment online. Every bank provides a unique Customer ID or Net Banking ID and a PIN to each customer of the bank.  
3. The process of making digital recordings (audio or video) that are available for downloading is called podcasting.  
4. Quora is a Question & Answer site where anyone can ask a question and people answer.  
5. The Paragraph tag is written as `<p>`. This tag defines start and end of a paragraph in the text. It is both a container as well as an empty tag.  
6. HTML provides the `<font>` tag to change the certain properties such as font size, face and colour of a block of text on a web page.

## Test Sheet–2

(Based on chapters 6 to 10)

- A.** 1. (ii)      2. (iii)      3. (ii)      4. (i)      5. (ii)  
6. (iii)      7. (iii)      8. (ii)      9. (i)
- B.** 1. Masking      2. Layers      3. string      4. input()      5. if  
6. true
- C.** 1. T      2. T      3. F      4. T      5. F  
6. F
- D.** 1. The movement of an object in-between the frames is called Tween.  
2. a. Motion Tween    b. Shape Tween    c. Classic Tween  
3. We can use a variable directly by assigning a value to the variable.  
For example, name = "Deepak"  
4. A data type specifies the type of value a variable can contain.

5. Decision making in Python is done by conditional statements which decide the flow of program execution. In Python, three types of decision making statements which are if, if...else and if...elif...else statements.
6. Empty tags does not contain any content and closing tag. Whereas, the container tags hold some content and also have closing tag.

**E.**

1. Layers are sheets on which you place your drawings, animations and objects. They allow you to keep the elements of the animation separate. These are similar to transparent sheets, stacked one on top of the other.
2. Comments in Python can be used to explain parts of the code. It can also be used to hide the code as well. Comments enable us to understand the way a program works. In python, any statement starting with # symbol is known as a comment.  
For example, # printing a string print("Hello world")
3. Control statements are used to control the execution of program. Types of control statements are:

1. Break statement
2. Continue statement

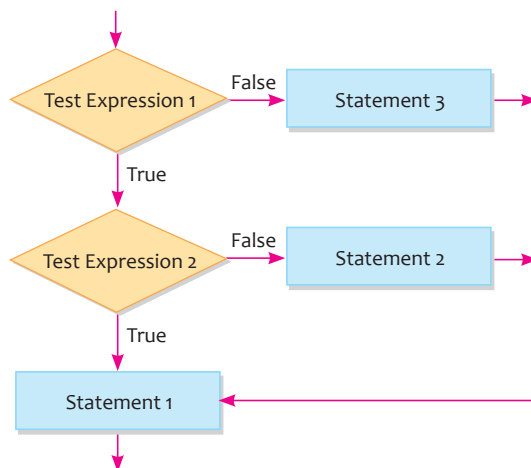
4. HR tag is used when you want to divide your web page into different sections.

The <HR> tag has following attributes:

- WIDTH: It displays the horizontal ruler of the specified width in pixels or in percentage.  
<hr width="550"> or <hr width="80%">
- SIZE: It controls the height or the thickness of the horizontal ruler.  
<hr size="4">
- COLOR: It is used to apply the background color.  
<hr color="pink">
- ALIGN: It is used to align the horizontal ruler left, right and center.  
<hr align="right">

5. Website is a collection of static pages such as home page, contact page, profile page. On the other hand, blog contains both pages and posts but mostly posts. Websites usually don't change regularly as blogs do.

6.



**F.** weekday = int(input("Enter weekday day number (1-7) : "))  
 if weekday == 1 :  
     print("\nMonday");  
     elif weekday == 2 :  
         print("\nTuesday")  
     elif weekday == 3 :  
         print("\nWednesday")  
     elif weekday == 4 :  
         print("\nThursday")  
     elif weekday == 5 :  
         print("\nFriday")  
     elif weekday == 6 :  
         print("\nSaturday")  
     elif (weekday == 7) :  
         print("\nSunday")  
     else :  
         print("\nPlease enter weekday number between 1-7.")

**G.** a = int(input("Enter the first number: "))  
 b = int(input("Enter the second number: "))  
 if(a >= b):  
     print(a, "is greater")  
 else:  
     print(b, "is greater")