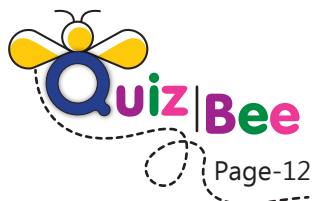


## 1. Fundamentals of Computer



1. A microprocessor is an integrated chip on which the entire CPU (Control Unit and ALU) is fabricated.
2. Digital Camera and Microwave.

### ASSESS YOURSELF

1. a. (i)                      b. (iv)                      c. (iv)                      d. (i)                      e. (iii)
2. a. Plotter                      b. Computer                      c. Control Unit                      d. Optical Character Reader  
e. Smart Watch
3. a. (F)                      b. (T)                      c. (T)                      d. (T)                      e. (F)
4. a. **Magnetic Ink Character Reader** is an input device that reads special characters that are printed using a special magnetic ink on cheques like Cheque number, bank code and branch code. MICRs scan this information and are thus capable of sorting cheques.  
b. **Barcode reader** is an electronic device, used for reading printed barcodes. Barcode readers consist of a light source, lens and light sensor that help them scan these codes.  
c. Fourth Generation computers used components like the microprocessor, where micro refers to the physical size of the component. A microprocessor is an integrated chip on which the entire CPU (Control Unit and ALU) is fabricated.  
d. A handheld computer is a type of computer that can easily be stored in our pocket and used by holding it in our hands. Most of handheld computers have a touchscreen in which we input data by using our fingers. Smartphone and Smartwatch are two examples of handheld computer.

- e. (i) A projector projects or displays data of computer screen on a large screen or surface for audience.
- (ii) Automated Teller Machine (ATM) is another example of the embedded computer that allows us to withdraw money from our bank account from anywhere and anytime.
- (iii) The microwave that we use at our home is also an example of the embedded computer that allows us to warm and cook food.
- (iv) A laptop is a portable computer which you can keep on your lap. You can carry a laptop anywhere, therefore, you are not restricted to one place while working on a desktop computer.

5.

| Supercomputer                                                                                         | Minicomputer                                                                                                                      |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| a. A supercomputer consists of a large number of processors and also occupies a huge amount of space. | a. Minicomputers are more powerful than microcomputers. They are bigger in size and faster in processing speed.                   |
| b. They are used in the fields of creating animated graphics and conducting nuclear research.         | b. They can support several users working at the same time on the same machine which means they support a multi-user environment. |
| c. For example. PARAM 9000                                                                            | c. For example HCL Magnum                                                                                                         |

6. a. Bar Code Reader

b. Laser printer

7. a. I

b. I

c. O

d. O

e. I

f. O



{CODING ZONE}

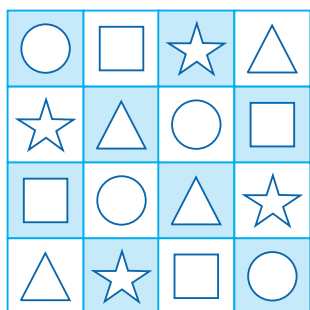
=

Coding Zone

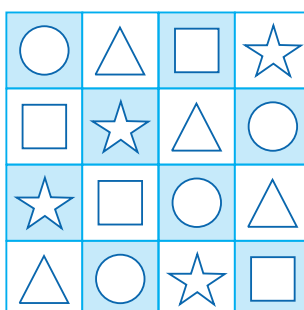


Coding Zone

b.

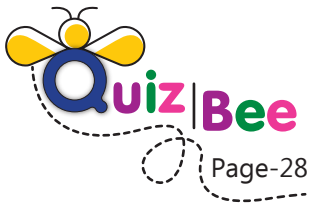


c.



2

## 2. Formulas and Functions in Excel 2016



1. MAX(range)
2. Colon (:), Single space and Comma (,).fabricated.

### ASSESS YOURSELF

1. a. (ii)                      b. (i)                      c. (i)                      d. (i)                      e. (iv)
2. a. Label                      b. equal to                      c. cell reference                      d. function                      e. LEN
3. a. A formula is an expression that operates on the value or a range of cells and generates a result.  
b. The results of the formula in a numerical formula, are calculated according to an order is known as the operator precedence.  
c. The syntax of this function is CONCATENATE (text1, text2). It is used to join together two or more different text strings  
d. A group of selected cells is called a cell range. The selected cells should be in continuation to form a range. Cell range is used to perform a calculation on multiple cells.  
To select a cell range using a mouse, click in the first cell from which you want to start the range, then press and hold the left mouse button and drag the mouse diagonally to select the desired range. Now release the mouse button.

e.

| Error  | Meaning                                                  | Tip to Correct                                                                  |
|--------|----------------------------------------------------------|---------------------------------------------------------------------------------|
| #NAME? | The function name is not recognised by Excel.            | Check and correct the function name.                                            |
| #REF!  | The cell reference is not valid.                         | Check and correct the cell ranges.                                              |
| #NUM!  | The formula or function contains invalid numeric values. | Ensure there are no special symbols such as \$ or % being used with the number. |

4. a. Max(): It returns the largest value in the given range.  
b. Today(): It returns the current date.  
c. Len(): It returns the length of the text string.
5. a.

| Relative Cell Referencing                                                                                                                                                                                   | Absolute Cell Referencing                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| i. It refers to the cell that is above or below and left or right to a number of rows or columns.                                                                                                           | i. It refers to the reference in a formula remains the same even if we copy and paste the formula to a new location.                      |
| ii. For example, a formula (=A2*B2) placed in cell C2 multiplies the values of cells A2 and B2. As we press the Enter key, the result of the multiplication of values in A2 and B2 is displayed in cell C2. | ii. For example, if we want the value of A1 to be constant, when multiplying it with cell of column B, absolute referencing will be used. |

b.

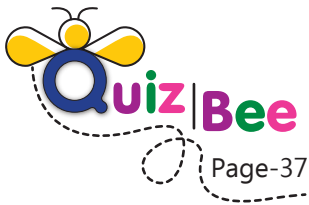
| Comparison Operators                                                                    | Reference Operators                                              |
|-----------------------------------------------------------------------------------------|------------------------------------------------------------------|
| i. Comparison operators are used to compare two values with the given set of operators. | i. Reference operators are used to combine a range of cells.     |
| ii. Some comparison operators are = (equal to), > (greater than).                       | ii. Some reference operators are colon operator, comma operator. |

6. Divide by Zero Error. She should not divide the number by 0.



1. a. 50  
b. 3
2. a. =CONCATENATE("Good ", "Morning")  
b. =MIN(10,6,-2,0)

### 3. Charts in Excel 2016



Bar Chart

#### ASSESS YOURSELF

1. a. (ii)                      b. (iii)                      c. (i)                      d. (iii)                      e. (ii)
2. a. Column                      b. Pie                      c. Column                      d. Area                      e. Scatter
3. a. (F)                      b. (F)                      c. (T)                      d. (T)                      e. (F)
4. a. Data can be presented in an attractive way to attract the attention of readers.

b. **Legend:** It is a key which displays the symbols or colours used in the chart.

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

c. A pie chart is shaped like a circle divided into slices, each slice showing the relative size of each value. The pie chart only displays one data series in the form of comparative charts. It is useful when you want to emphasise on a significant element.

d. To change the background of the chart, follow the given steps:

- 1 Select the chart.
- 2 Click on the **Format** tab.
- 3 Click on the **Format Selection** command.
- 4 Click on the **Fill section**.
- 5 Click on the **Picture** or **texture fill** option button.

e. A line chart is a type of graph that displays continuous data at regular intervals. It is generally used to highlight the changes that take place in a value through a specified period of time. It is also known as a frequency polygon.

f. To change the chart type, follow the given steps:

- 1 Select the chart and click on **Design** tab.
- 2 Click on the **Change Chart Type** command.

3 Click on desired option (here we choose **Line** option). The chart will change to **Line Chart**.

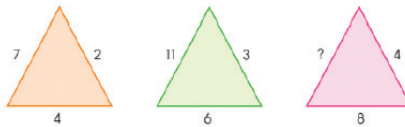
4 Click on **Line with Markers** option.

5. a. Column chart or bar chart      b. Pie chart      c. Area chart  
6. a. 60      b. December      c. October



1. **27**  
2. This question was printed incorrectly in the book, please correct it in your textbook)

Question: Write the missing number.



Ans. **15**

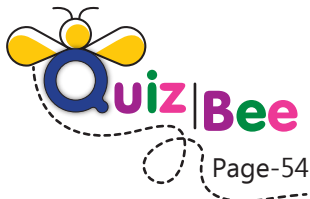
3. **(C)**

## Periodic Assessment–1

(Based on chapters 1 to 3)

1. a. Smart Watch is used as a computing device which you can wear on your wrist.  
b. Barcode Reader is used for reading printed barcodes.  
2. a. 4      b. 15      c. 8      d. 3  
3. a. January      b. October  
4. a. Chart      b. Scatter Plot Chart      c. Today()      d. ATM  
e. Supercomputer

## 4. Introduction to Adobe Animate 2021



1. A microprocessor is an integrated chip on which the entire CPU (Control Unit and ALU) is fabricated.



## 2. Digital Camera and Microwave.

### ASSESS YOURSELF

1. a. (ii)                      b. (i)                      c. (ii)                      d. (ii)                      e. (i)
2. a. Animation              b. Library                  c. Frames                  d. Sub-Selection          e. Lasso
3. a. Stage, Work Area and Current Scene (any three).  
b. It organises and controls a document's content in layers and frames. Like films, Animate documents divide time lengths into frames. The timings of animations are adjusted in the Timeline panel.  
c. To fill colours in a shape, follow the given steps:
  - 1 Click on the **Paint Bucket** tool.
  - 2 Click on the **Fill Color** button.
  - 3 Select the desired colour.
  - 4 Click inside the shape to fill colour.  
d. draw a curved line, follow the given steps:
  - 1 Click on the **Pen** tool.
  - 2 Click on the stage area from where the curve has to begin. An anchor point is created.
  - 3 Position the mouse pointer and drag to set the slope of the curve. Now release the mouse button.  
e. To save an Animate file, follow the given steps:
  - 1 Click on the **File** menu.
  - 2 Click on the **Save** option.
  - 3 Choose the location where you wish to save the file.
  - 4 In the **File name:** box, type the file name.
  - 5 Click on **Save** button.
4. a. Adobe Animate  
b. Lasso Tool  
c. Classic brush tool



{CODING ZONE}

=

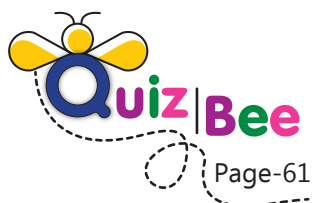
Coding Zone

[]

Coding Zone

1. a. Gills                      b. Sky
2. a. G100                      b. D, W
3. 9

## 5. More on Adobe Animate 2021



Label Text

### ASSESS YOURSELF

1. a. (ii)                      b. (i)                      c. (ii)                      d. (iii)                      e. (iii)
2. a. (T)                      b. (T)                      c. (T)                      d. (F)                      e. (T)
3. a. .fla                      b. Lasso Tool                      c. Free Transformation Tool                      d. Ctrl+G  
e. Label Text
4. a. When text is added to **Label Text**, the text does not wrap. When text is added to **Block Text**, we specify a width and while typing the text, if it reaches the end of the block, it wraps to start a new line and increases the depth of the box.  
b. To select an object in a rectangular selection marquee by clicking and dragging over the object. To select an object, follow the given steps:
  - 1 Click on **Selection** tool.
  - 2 Place the mouse pointer and drag over the object you want to select.  
c. To rotate the object, follow the given steps:
  - 1 Select the object and click on the **Free Transformation** tool.
  - 2 Move the mouse pointer just outside the corner of the object. The mouse pointer changes to .
  - 3 Click and drag to rotate.  
d. Yes. To group the shapes, follow the given steps:
  - 1 Select all the shapes one by one.
  - 2 Click on the **Modify** menu
  - 3 Select the **Group** option.  
e. To convert the text into a shape, follow the given steps:
  - 1 Select the text to be converted and click on the **Modify** tab.
  - 2 Click on the **Break Apart** command.

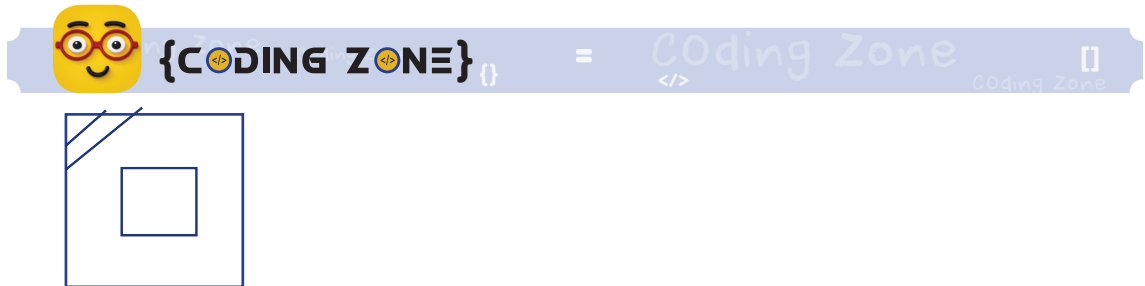


The text is converted into graphics as per selection.

f. We can change the font face and font size of the text from Properties inspector. To do so, follow these steps:

- 1 Select the text.
- 2 Select the font face.
- 3 Select the font size.
- 4 Select the Fill option.
- 5 Select the colour.
- 6 Select spacing.

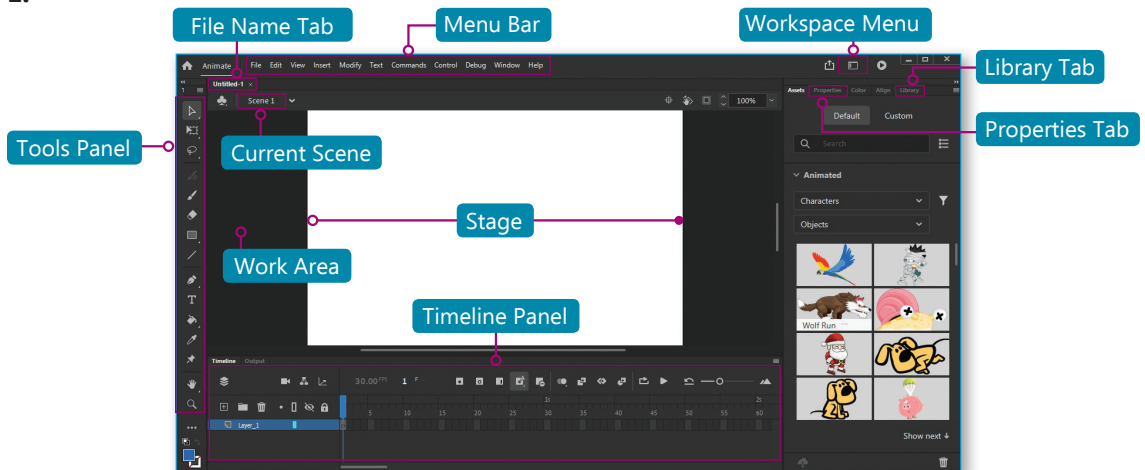
5. Free Transformation Tool



## Periodic Assessment–2

(Based on chapters 4 & 5)

1.



2.  Go to import.
  -  Navigate the location and select the image.
  -  Click on the File menu.
  -  Select the Import to Stage option.
3.
    - a. It draws and paints brush like strokes. It lets you create special effects.
    - b. It is used to select irregular shaped pieces of an object.
    - c. It erases the area over which we drag the Eraser tool.
    - d. It is used to select partial objects.

## Test Sheet–1

(Based on chapters 1 to 4)

1.
 

|          |         |          |         |        |
|----------|---------|----------|---------|--------|
| a. (iii) | b. (iv) | c. (iii) | d. (ii) | e. (i) |
| f. (ii)  |         |          |         |        |
2.
 

|                 |                             |             |          |
|-----------------|-----------------------------|-------------|----------|
| a. Control unit | b. Optical Character Reader | c. function | d. LEN() |
| e. equals to    | f. Bar                      | g. Bar      |          |
3.
 

|        |        |        |        |        |
|--------|--------|--------|--------|--------|
| a. (F) | b. (T) | c. (T) | d. (T) | e. (T) |
| f. (T) |        |        |        |        |
4.
  - a. **Barcode reader** or **barcode scanner** is an electronic device, used for reading printed barcodes.
  - b. The results of the formula in a numerical formula, are calculated according to an order is known as the operator precedence.
  - c. A formula is an expression that operates on the value or a range of cells and generates a result.
  - d. (Any 2)
 

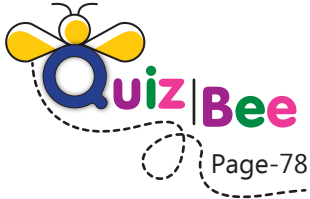
**Legend:** It is a key which displays the symbols or colours used in the chart.

**Chart Area:** It includes all objects and elements of a chart.
  - e. It organises and controls a document's content in layers and frames. Like films, Animate documents divide time lengths into frames.
  - f. The **Selection** tool allows us to select an object in a rectangular selection marquee by clicking and dragging over the object.



5. a. A handheld computer is a type of computer that can easily be stored in our pocket and used by holding it in our hands. Most of handheld computers have a touchscreen in which we input data by using our fingers. Smartphone and Smartwatch are two examples of handheld computer.
- b. A group of selected cells is called a cell range. The selected cells should be in continuation to form a range. Cell range is used to perform a calculation on multiple cells.
- To select a cell range using a mouse, click in the first cell from which you want to start the range, then press and hold the left mouse button and drag the mouse diagonally to select the desired range. Now release the mouse button.
- c. To save an Animate file, follow the given steps:
- 1 Click on the **File** menu.
  - 2 Click on the Save option.
  - 3 Choose the location where you wish to save the file.
  - 4 In the **File name:** box, type the file name.
  - 5 Click on Save button.
- d. To change the background of the chart, follow the given steps:
- 1 Select the chart.
  - 2 Click on the **Format** tab.
  - 3 Click on the **Format Selection** command.
  - 4 Click on the **Fill** section.
  - 5 Click on the **Picture** or **texture fill** option button.
- e. To change the chart type, follow the given steps:
- 1 Select the chart and click on **Design** tab.
  - 2 Click on the **Change Chart Type** command.
  - 3 Click on desired option (here we choose **Line** option). The chart will change to Line Chart.
- f. We can change the font face and font size of the text from Properties inspector. To do so, follow these steps:
- 1 Select the text.
  - 2 Select the font face.
  - 3 Select the font size.
  - 4 Select the Fill option.
  - 5 Select the colour.
  - 6 Select spacing.

## 6. Learn HTML5 and CSS3



Empty tags are self-contained. They have only an opening tag. For example: `<BR>`.

### ASSESS YOURSELF

1. a. (ii)                      b. (i)                      c. (iii)                      d. (i)                      e. (i)
2. a. HTML                      b. Hypertext                      c. External                      d. Comments                      e. `<HTML>`
3. a. Notepad                      b. `<P>`                      c. Tim Berners Lee                      d. Cascading Style Sheets
4. a. Markup language is a computer language that uses specific codes for formatting the layout and style of a text file. It is human-readable, which means that markup files use the standard English language rather than the programming syntax.  
b. HTML is not a case sensitive language  
c. Container tags come in pairs, i.e. they have both opening and closing tags. The closing tag is created by putting a forward slash (/) at the beginning of the opening tag. For example, `<HTML> ..... </HTML>`  
d. `<TAGNAME STYLE = "PROPERTY1:VALUE; PROPERTY2:VALUE; PROPERTY3:VALUE;">`  
e. Cascading Style Sheets or CSS are used to define styles for webpages.  
An inline style is used to apply a unique style for a single element. Inline styles are added directly to an HTML tag by using the style attribute with the tag. Syntax to use the style attribute with a tag:  
`<TAGNAME STYLE = "PROPERTY:VALUE;">`  
f. The `<HR>` tag is used to divide the webpage into different sections by drawing a horizontal line in the webpage. The thickness of the horizontal line is specified through the Size attribute and the length is specified through the Width attribute in pixels or as a percentage..

For Example:

```
<!DOCTYPE HTML>
<HTML>
<HEAD>
<TITLE> HR Tag </Title>
```



```

</HEAD>

<BODY>

<p>This is the first paragraph of the tag. HTML is the standard markup
language for Web pages. </p>

<hr Size="10" width="80%" >

<p>This is the second paragraph of the tag.HTML is the standard markup
language for Web pages.</p>

<hr Size="10" width="80%" color="grey">

<hr Size="10" width="80%" color="Red">

</BODY>

</HTML>

```

- g. By default, all the text we type in an HTML document appears in one line. We can insert a line break to shift the text to go to a new line. The **<BR>** tag is used to insert a line break in an HTML document. **<BR>** tag is an empty tag and does not require a corresponding closing tag.

```

<!DOCTYPE HTML>

<HTML>

    <HEAD>

        <TITLE? BR Tag </Title>

    <HEAD>

    <BODY>

        <P>

            Orange Education Pvt Ltd<BR>

            9, Daryaganj<BR>

            Delhi<BR>

            110002

        </P>

    </BODY>

</HTML>

```

5.

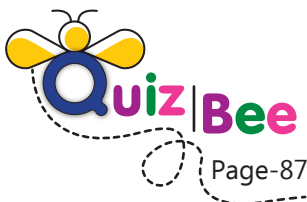
| Internal CSS                                                                                                              | External CSS                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| i. Internal CSS allows us to define the style for a single HTML page.                                                     | i. External CSS allows us to define the style for many webpages by using a single CSS file.                                                         |
| ii. It is defined using the <b>&lt;STYLE&gt;</b> tag in the head section of the HTML page.                                | ii. You need to include a reference to the external style sheet file within the <b>&lt;LINK&gt;</b> element inside the <b>&lt;HEAD&gt;</b> element. |
| iii. For Example:<br><pre>&lt;HEAD&gt; &lt;STYLE&gt; H1 {COLOR:RED;} H1 {COLOR:GREEN;} &lt;/STYLE&gt; &lt;/HEAD&gt;</pre> | iii. For Example:<br><pre>&lt;HEAD&gt; &lt;LINK REL="STYLESHEET" TYPE="TEXT/CSS" HREF="NAME OF STYLE SHEET"&gt; &lt;/HEAD&gt;</pre>                 |

6. a. Comments  
b. Inline CSS  
c. He can use **<p>** tag. The attribute of **<p>** tag to define some extra properties of this tag is align.



- a. **<HTML>** is missing.  
b. **</HTML>** is missing.

## 7. Formatting a Webpage



text-align

## ASSESS YOURSELF

1. a. (i)                      b. (iii)                      c. (ii)                      d. (iv)                      e. (ii)  
f. (i)
2. a. (F)                      b. (T)                      c. (T)                      d. (T)                      e. (F)
3. a. Cascading Style Sheets (CSS) is a convenient method of styling the elements of a webpage. It controls various elements like the colour, font, text size, etc. within a single page or the entire website. CSS can also be used to change the look of any webpage elements such as paragraphs, lists, backgrounds, etc.  
b. Text-indent is the option which is used for indentation in HTML5.  
c. It is used for specifying the repetition of an image on the webpage.  
d. The margin property is used to set margins for any webpage element. The four sides used with the margin property are: left, right, top and bottom. The value of sides can be measured in pixels (for example: 20px, 30px, etc.) or as a percentage of the window.  
e. Every web page on a website can be linked to a single style sheet, hence, any change made to the style sheet formatting affects every HTML document linked to the sheet. We can use a style sheet as a template by storing all the information in one place and easily change the appearance of our site in one go, thus saving a lot of time in case your site has numerous pages.  
f. i. **Background-color:** It contains the name of the colour. It specifies the background colour to be used on the webpage.  
ii. **Text transform:** It specifies the transformation of text into uppercase, lowercase or title case.
4. a. Margin property  
b. By changing the CSS properties of the elements.



{CODING ZONE}

=

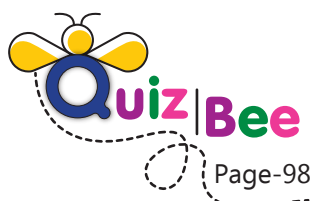
Coding Zone

}

Coding Zone

1

## 8. Internet Services



Google Meet and Zoom

### ASSESS YOURSELF

1. a. (i)                                      b. (iv)                                      c. (i)                                      d. (ii)
2. a. Instant Messaging                                      b. Google Drive                                      c. Blogging                                      d. Internet Banking
3. a. Google Meet                      b. Flipkart                      c. iTunes                      d. Facebook Messenger
4. a. Zoom is used as a video conference application which is basically live meeting held between two or more geographically separated people. Each participant requires a video camera, a microphone, speakers and a high-speed Internet connection to transmit audio and video data.  
b. Instant messaging allows us to exchange messages (text, picture, etc.) between two or more people at different locations connected to the Internet. It allows us to create a group that may consist of friends, family or people at work, with whom we can chat privately.  
c. Online transactions can be made without going to the bank and at any time of the day.  
d. A Blog or Weblog is a personal online diary or journal that allows us to share our thoughts or ideas. A blog allows us to connect with people with similar interests. We can add videos, pictures and music to our blog and visitors can add comments on the published content too.  
e. A **podcast** is like an online on-demand radio show. It can be considered as a medium through which recorded audio information is distributed over the Internet, unlike a radio show where the show is broadcasted live. We can listen to these audio files whenever we want. You can listen to podcasts directly from the websites they are posted on or can also subscribe to them using software like iPodder and iTunes.  
f. To upload a file/folder on Google Drive, follow the given steps:
  - 1 Click on the **New** option.
  - 2 Click on Folder and select **File upload** or **Folder upload** option.
  - 3 Navigate the folder and select the desired files or folders.
  - 4 Click on **Open** button.



5. File sharing service of Internet using Google drive or dropbox



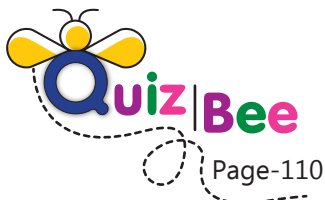
1. 48
2. A B C D E F

## Periodic Assessment–3

(Based on chapters 6 to 8)

1. a. Color                      b. background-color                      c. text-align  
d. ??                      e. <Title>
2. HTML Code
  - a. **Video Conference:** Video conference is a live meeting held between two or more geographically separated people. Each participant requires a video camera, a microphone, speakers and a high-speed Internet connection to transmit audio and video data.
  - b. **Google Drive:** Google Drive is a cloud storage service developed by Google. It provides up to 15 GB free safe storage space. We can store data online so that it can be accessed from anywhere. It also provides tools for sharing with other users easily over the Internet.
  - c. **Instant Messaging:** Instant messaging allows us to exchange messages (text, picture, etc.) between two or more people at different locations connected to the Internet. It allows us to create a group that may consist of friends, family or people at work, with whom we can chat privately.

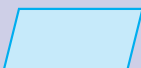
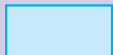
## 9. Algorithm, Flowchart and Mind Maps



Low-level language

## ASSESS YOURSELF

1. a. (i)                      b. (iii)                      c. ??                      d. (i)
2. a. (F)                      b. (F)                      c. (F)                      d. (F)                      e. (F)
3. a. A flowchart is the graphical representation of a process and the logic (which is also called an algorithm) used in it. Flowcharts are used in analysing, designing, documenting or managing a process or program in various fields.  
 b. **Definiteness:** All instructions given should be clear and easy to understand.  
**Finiteness:** It should include a finite number of instructions for completing a task.  
 (Any 2)  
 c. **High-level language** is considered to be closer to human beings. It is machine independent. However, they need to be translated into binary or machine language. Some examples are PASCAL, FORTRAN, etc.  
 d. An **interpreter** reads one line of instruction at a time and translates it into machine language. A **compiler** reads an entire set of instructions written in a high-level language and then translates them into machine language.  
 e. Any three symbols of flow chart are:

| Symbol                                                                              | Description                                                                                                                                                          |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Input/Output:</b> It represents reading input or writing output.                                                                                                  |
|  | <b>Processing:</b> It indicates the processing of the input provided.                                                                                                |
|  | <b>Decision:</b> If there is a choice to be made between two options, this symbol is used. It has two flow lines outwards, representing Yes or No and True or False. |

4. a. Loop                      b. Algorithm

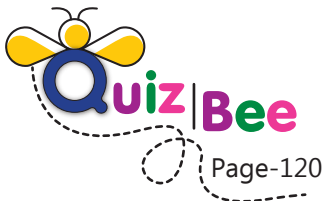


Following is an algorithm to accept the age of a person and check whether he/she is eligible to vote or not. A person can only vote if he/she is 18 years old or more. Number the steps of the algorithm in the correct order.



- 2 Accept the age of the person.
- 3 If age is greater than or equal to 18, then display, 'You are eligible to vote'.
- 1 Start.
- 4 If age is less than 18, then display, 'You are not eligible to vote'.
- 5 Stop.

## 10. Introduction to Python



1. T
2. F

### ASSESS YOURSELF

1. a. (iv)                      b. (i)                      c. (ii)                      d. (iv)                      e. (ii)
2. a. data type                b. string                      c. input()                      d. Guido van Rossum  
e. Interactive Mode
3. a. **Python** is a high level object-oriented programming language. It is a general purpose language with interactive features.  
b. **Comments** in Python can be used to explain parts of the code. It can also be used to hide the code as well. Python does not execute comments.  
c. A **data type** is used to define the type of value a variable can contain. For example, a person's name must be stored as a string value whereas the person's age must be stored as an integer.  
d. **Operators** are the special symbols which are used to perform computations. The values which the operators use to get the output are called **operands**.  
e. **(Any 2)**

**Open source:** Python is an open-source language and can be easily downloaded from the Internet for free.

**Portable:** Programs written in Python can run on almost every known platform such as Windows, Linux and Macintosh.

f. To open Python IDLE Shell, follow the given steps:

- ❶ Type python in search box.
- ❷ Click on IDLE (Python 3.9 64-bit) option.

### Components

**Menu bar:** It has various menus such as File, Edit, Shell.

**Command Prompt:** It allows the user to enter commands directly into Python and get an output instantly by pressing the Enter key.

**Control buttons:** These buttons are used to resize and close the window.

g. A Variable is the name of memory location that is used to store data values which can be accessed or changed later. The names given to the variables are known as identifiers.

In Python, variables are declared and initialized at the same time in the following way:

```
a = 10
b = 20

print ("a=", a)
print ("b=", b)
```

On the output screen, a = 10 and b = 20 will be printed.

h. To run a Python program, follow the given steps:

- ❶ Click on the run menu.
- ❷ Click on the Run Module option.

4. a.

| Interactive Mode                                                                                        | Script Mode                                                                                                                             |
|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| i. It is also known as IDLE Shell Window.                                                               | i. It is also known as Editor's Window.                                                                                                 |
| ii. It is an interactive window where we can type a Python code and view the output in the same window. | ii. It does not allow you to save our commands written on the command prompt, it gives output immediately after pressing the Enter key. |

b.

| Input() Function                                                                                                         | Print() Function                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| i. We use input() function to take the user's input while a program executes.                                            | i. We use the print() function to display the result on the screen.                                                  |
| ii. The general syntax of the <b>input()</b> function is as follows:<br>Variable_name = input(<message to be displayed>) | ii. The general syntax of the <b>print()</b> function is as follows:<br>type <b>print("message to be displayed")</b> |

5. a. Script mode(Editor's window)

b. Press F5 key or goto Run → Run Module

6. a. 461

b. -3

c. 16122

d. 113

e. 2256

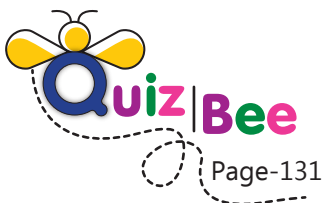


a. 38

b. Son

c. 19

## 11. Intelligence and AI Approaches



People who possess good understanding of musical rhythm and good at recognising the musical patterns and tones easily.

### ASSESS YOURSELF

1. a. (iv)

b. (ii)

c. (i)

d. (ii)

2. a. ??

b. (f)

c. (T)

d. (T)



3.
  - a. Bodily-Kinesthetic Intelligence is being good at dancing and sports along with love creating things with their hands, tends to remember by doing, rather than hearing and seeing, and excellent hand-eye and physical coordination Flexible in different body movements and performing actions.
  - b. A rule-based system uses rules as knowledge representation. These rules are coded in the system in the form of if-then-else statements which help the computer in taking decisions. The idea behind a rule-based system is to use the knowledge of a human expert in a specialised domain and embody it within the computer system.
  - c. Intelligence refers to the ability to think, to learn from previous experience, to solve complex problems and to adapt new things and environment.

**Types of Intelligence:**

- Virtual-Spatial Intelligence
  - Verbal-Linguistics Intelligence
  - Logical-Mathematical Intelligence
  - Bodily-Kinesthetics Intelligence
  - Musical Intelligence
  - Interpersonal Intelligence
  - Existential Intelligence
  - Intrapersonal Intelligence
  - Naturalistic Intelligence
- d. 82
  - e. 141
  - f. Plant

4.

| Interpersonal Intelligence                                             | Intrapersonal Intelligence                                                                     |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| i. Good at communicating ideas and thoughts.                           | i. Can recognise their strengths and weaknesses.                                               |
| ii. Good at non-verbal communication and resolving conflict in groups. | ii. Aware of their own emotional state and feelings and know how they can motivate themselves. |
| iii. Good at maintaining positive relationships with others,           | iii. Enjoy analysing theories and ideas.                                                       |

5. Naturalistic Intelligence





a. E T A

|   |   |   |
|---|---|---|
| A |   |   |
| E | A | T |
|   |   |   |

b. O N W

|   |   |   |
|---|---|---|
| W | O | N |
|   |   | O |
| O | W | N |

## Periodic Assessment-4

(Based on chapters 9 to 11)

- Input ox
  - Processing box
  - Output box
- HTML Code
- Bodily-Kinesthetic Intelligence
  - Logical-Mathematical Intelligence

## Test Sheet-2

(Based on chapters 6 to 11)

- (iii)
  - (i)
  - (ii)
  - (i)
  - (iv)
  - (i)
- Algorithm
  - Assembler
  - External
  - Identifiers
  - Script Mode
  - Internet Banking
- (F)
  - (F)
  - (T)
  - (F)
  - (T)
- A flowchart is the graphical representation of a process and the logic (which is also called an algorithm) used in it.
  - Markup language is a computer language that uses specific codes for formatting the layout and style of a text file.
  - Python** is a high level object-oriented programming language. It is a general purpose language with interactive features.
  - Zoom offers the video conferencing option which is a live meeting held between two or more geographically separated people.
  - People who possess the qualities like being good at dancing and excellent hand-eye and physical coordination.



5. a. An **interpreter** reads one line of instruction at a time and translates it into machine language. Any error in the instruction is reported immediately and the programmer can correct it accordingly. It is slower than the compiler.
- b. The <HR> tag is used to divide the webpage into different sections by drawing a horizontal line in the webpage. The thickness of the horizontal line is specified through the **Size** attribute and the length is specified through the **Width** attribute in pixels or as a percentage. The **Color** attribute is used to set the colour of the rule. The **Noshade** attribute makes the line appear flat grey, giving a 2D effect to the rule.
- c. A **Variable** is the name of memory location that is used to store data values which can be accessed or changed later. The names given to the variables are known as **identifiers**. In Python, we do not need to specify the type of variable because Python is a dynamically language and it also identifies the variable type automatically.

In Python, variables are declared and initialized at the same time in the following way:

```
a = 10
b = 20
print ("a=", a)
print ("b=", b)
```

On the output screen, a = 10 and b = 20 will be printed.

- d. To open Python IDLE Shell, follow the given steps:

- ❶ Type python in search box.
- ❷ Click on IDLE (Python 3.9 64-bit) option.

### Components

**Menu bar:** It has various menus such as File, Edit, Shell.

**Command Prompt:** It allows the user to enter commands directly into Python and get an output instantly by pressing the Enter key.

**Control buttons:** These buttons are used to resize and close the window.

- e. To upload a file/folder on Google Drive, follow the given steps:

- ❶ Click on the **New** option.
- ❷ Click on Folder and select **File upload** or **Folder upload** option.
- ❸ Navigate the folder and select the desired files or folders.
- ❹ Click on **Open** button.

- f. Plant. Visual-Spatial Intelligence