1. Number System

Answers of Book

DO AND LEARN!

1. Fill in the blanks.

Ans. (a) **Number System** is a technique to represent numbers in the computer system architecture.

(b) The number system that we use in our day-to-day life is the **Decimal** number system.

(c) The two states of binary value are __**1**__ for the 'on' state and __**0**__ for the 'off' state.

(d) __**Bit**__ is the smallest unit of memory or instruction that can be given or stored on a computer.

(e) 1 MB = __**1024**__ KB

2. Write True (T) or False (F).

Ans. (a) Machine language uses binary values 0 and 1. ⬚ T

(b) Octal number system uses 16 digits. ⬚ F

(c) The last position in any number system represents a power 'x' of the base, where x represents the last position, 1. ⬚ T

(d) The term 'bit' is a contraction of the words 'binary' and 'digit'. ⬚ T

(e) Any number raised to the power 0 means 0. ⬚ F

3. Tick (✓) the correct option.

Ans. (a) Computer architecture supports __**4**__ type(s) of number system(s).

    (i) 3   (ii) 1

    (iii) 2   **(iv) 4**

(b) The decimal number 5678 consists of the digit '6' in the **hundreds** position.

   (i) units   **(ii) hundreds**

   (iii) ones   (iv) tens

(c) The first position of any number system is given a power '0' considering its position from **extreme left**.

   (i) extreme left   (ii) extreme right

   (iii) middle   (iv) anywhere

(d) A group of __8__ bits makes a byte.

   (i) 16   **(ii) 8**

   (iii) 4   (iv) 20

(e) In the hexadecimal number system, D has the value __13__.

   (i) 10   (ii) 11

   (iii) 12   **(iv) 13**

4. Answer the following questions.

(a) What are the criteria to determine the value of each digit in a number?

Ans. The value of each digit in a number can be determined using the following:

     ○ The digit

     ○ The position of the digit in the number

     ○ The base of the number system (where the base is defined as the total number of digits available in the number system)

(b) Write a short note on hexadecimal (hex) number system.

Ans. In the hexadecimal number system, the base used is 16. So 16 digits are used to represent a given number. In this number system, each digit position represents a power of 16. The following are the hexadecimal numerals: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F. The number system is supplemented by letters as the base is greater than 10. To take A, B, C, D, E and F as part of the number system is conventional and has no logical or deductive reason.

Since the base numbers for any number system that has more than 9 as its base will have to be supplemented, in the hexadecimal number system, the letters A to F are used.

(c) What are the characteristics of the octal number system?

Ans. Characteristics of the octal number system:

- It uses eight digits: 0, 1, 2, 3, 4, 5, 6 and 7.
- It is also called the base 8 number system.
- The first position in an octal number represents a power '0' of the base (16) starting from the leftmost number, i.e., $16°$.
- The last position in an octal number represents a power of 'x' of the base (8). For example: 8^x, where x represents last position, 1.

(d) What you know about the decimal number system?

Ans. The number system that we use in our day-to-day life is the decimal number system, which has 10 symbols. These are: 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. The position of every digit has a weight which is a power of 10. Each position in the decimal system is 10 times more significant that the previous position. This means that the numeric value of a decimal number is determined by multiplying each digit of the number by the value of the position in which the digit appears and then adding the products.

COMPUTER TIME

Do the following conversions. Use the Calculator application of Windows to verify your calculations.

1. Convert the following binary numbers to decimal number.
   (a) 101
   (b) 11010
   (c) 10110
   (d) 10001

Ans. Do it yourself.

2. Convert the following octal numbers to decimal number.
   (a) 120_8
   (b) 1140_8
   (c) 1220_8
   (d) 1400_8

Ans. Do it yourself.

3. Convert the following hexadecimal numbers to decimal number.
   (a) $10BD_{16}$
   (b) $11ADC_{16}$
   (c) $12CDE_{16}$
   (d) $10CAF_{16}$

Ans. Do it yourself.

Answers of Suggested Class Activities

Ans. 1. HEXADECIMAL   **2.** OCTAL   **3.** DECIMAL   **4.** BINARY
   5. NUMBER SYSTEM

Answers of Worksheet

I.   **1.** (a)   **2.** (a)   **3.** (a)   **4.** (c)   **5.** (c)

II.   **1.** Octal   **2.** 2   **3.** 8   **4.** 11   **5.** binary

III.   **1.** T   **2.** F   **3.** F   **4.** T   **5.** T

1. Formulas and Functions with Excel 2013

Answers of Book

DO AND LEARN!

1. Fill in the blanks.

Ans. (a) There are two basic ways to perform calculations in Excel: **formulas** and **functions**.

(b) In Excel, a **formula** is an expression that operates on values in a range of cells or a cell.

(c) **Functions** eliminates the laborious manual entry of formulas.

(d) To see a formula, select a cell, and it will appear in the **formula bar**.

(e) A **cell reference** refers to the value of a different cell or cell range on the current worksheet or a different worksheet within the spreadsheet.

2. Write True (T) or False (F).

Ans. (a) =A1+A2+A3 finds the sum of the range of values from cell A1 to cell A3. `T`

(b) While writing a formula, press the F5 key on your keyboard to switch between relative and absolute cell references. `F`

(c) The AVERAGE function finds the average of a given range. `T`

(d) $A2 is an example of absolute cell referencing. `F`

(e) The COUNT function counts all the cells in a given range which contains only numeric values. `T`

3. Tick (✓) the correct option.

Ans. (a) The __**MAX**__ function helps in finding the maximum number in a range of values.

    (i) MIN   (ii) SUM

    (iii) MAX   (iv) AVERAGE

(b) There are __**3**__ types of cell references in Excel.

    (i) 4   (ii) 5

    (iii) 2   **(iv) 3**

(c) An absolute reference is designated in a formula by the addition of the __**$**__ sign.

    (i) %   (ii) &

    (iii) $ (iv) #

(d) __**Relative**__ references are especially convenient whenever you need to repeat the same calculation across multiple rows or columns.

    (i) Mixed   (ii) Absolute

    (iii) Relative   (iv) Cell

(e) All the formulas in Excel begin with the __**=**__ sign.

    (i) =   (ii) +

    (iii) !   (iv) @

4. Answer the following questions.

(a) Explain absolute cell referencing with the help of an example.

Ans. Absolute cell references do not change when copied or filled. It can be used to keep a row and/or a column constant.

For example, if you want to multiply a value entered in cell A1 with all the values entered in cells A2 to A5, the formula entered in cell A2 would be = A1*A2. When the formula will be copied to cells A3 to A5, the cell reference of A1 will remain constant.

(b) Differentiate between the COUNT and COUNTA functions of Excel.

Ans. The COUNT function counts all the cells in a given range, counting only the numeric values.

The COUNTA function counts all the cells in the given range regardless of their type.

(c) Write the steps to create and copy a formula using absolute reference/mixed reference.

Ans. To create and copy a formula using absolute reference/mixed reference, follow these steps:

1. Select the cell that will contain the formula and enter the formula to calculate the desired value.

2. Press the Enter key from the keyboard. The formula will calculate the value, and the result will be displayed in the cell.

3. Locate the fill handle in the bottom right corner of the desired cell.

4. Click and drag the fill handle over the cells you want to fill.

5. Release the mouse. The formula will be copied to the selected cells with an absolute reference, and the values will be calculated in each cell.

(d) Differentiate between a formula and a function in MS Excel.

Ans. There are two basic ways to perform calculations in Excel: Formulas and Functions.

○ **Formulas:** In Excel, a formula is an expression that operates on values in a range of cell or a cell. For example, = A1 + A2 + A3, which finds the sum of the range of values from cell A1 to cell A3.

○ **Functions:** Functions are predefined formulas in Excel. They eliminate laborious manual entry of formulas while giving them human-friendly names. For example, =SUM(A1:A3). The function adds all the values from A1 to A3.

(e) Mrs Rama, the class teacher of Class VI-A has entered the amount paid by her class students for going to a trip in Excel worksheet. She now wants to add and find the total amount collected from the class. Write the Excel command she would use to do so.

Ans. Lets assume that Mrs Rama has entired the amount in the range

of A1 to A40 (for 40 students). In cell A41, she can type the formula = Sum (A1:A40) and press the Enter key.

COMPUTER TIME

1. Write the multiplication table of 45 using formulas in Excel.

Ans. Do it yourself

2. Find the volume of 10 different cylinders whose radius and height must be different from each other using formulas in Excel.

(Volume of cylinder = $\pi r^2 h$)

Ans. Do it yourself.

Answers of Suggested Class Activities

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

Answers of Worksheet

I. **1.** +
   2. mathematic expression
   3. Formula Bar
   4. functions
   5. COUNTA

II. **1.** T   **2.** T   **3.** T   **4.** F   **5.** F

III. **1.** (b)   **2.** (c)   **3.** (a)   **4.** (b)   **5.** (a)

3. Creating Charts in MS Excel 2013

Answers of Book

DO AND LEARN!

1. Fill in the blanks.

Ans. (a) The __Line__ chart is one of the most frequently used chart types, typically used to show trends over a period of time.

(b) __Area__ charts are ideal for clearly illustrating the magnitude of change between two or more data points.

(c) A line that serves as a major reference for plotting data in a chart is called __Axis__.

(d) Everything inside the chart window, including all parts of the chart such as labels, axes, data markers, etc., are listed in the **chart area**.

(e) A __Bubble__ chart is a variation of an XY scatter plot.

2. Write True (T) or False (F).

Ans. (a) You cannot change the chart style once it is created. ☐ F

(b) The z-axis is the vertical axis, showing the depth of the third dimension in the chart. ☐ T

(c) Creating a chart in Excel is a difficult task. ☐ F

(d) To delete a chart, just select it and press the Delete key from the keyboard. ☐ T

(e) A combination chart is a visualisation that combines two or more chart types into a single chart. ☐ T

3. Tick (✓) the correct option.

Ans. (a) A key that identifies patterns, colours or symbols associated with the markers of a chart data series is called a/an **legend**.

(i) axis   **(ii) legend**

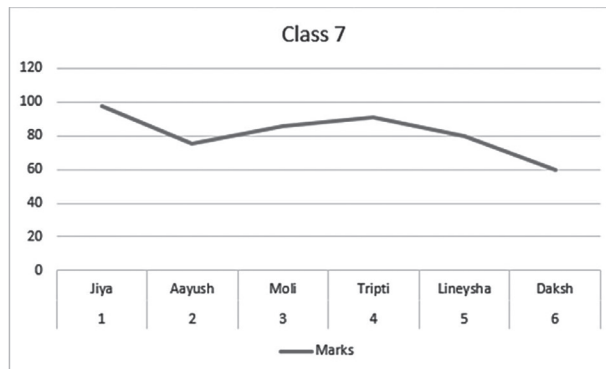(iii) trendline   (iv) plot area

(b) __Star__ is not a type of chart.
   (i) Doughnut   (ii) Pie
   (iii) Star   (iv) Bar
(c) Scatter charts in Excel are also known as __XY__ scatter plot charts.
   (i) MN   (ii) OP
   (iii) AB   **(iv) XY**
(d) A group of related values, such as all the values in a single row in the chart is a **Data Series**.
   (i) Data Series   (ii) Pattern Series
   (iii) Data Value   (iv) None of these
(e) **Pie** charts are ideal for visualising the distribution or proportion of data items when there are more than three categories.
   (i) Pie   (ii) Bar
   (iii) Scatter   (iv) Column
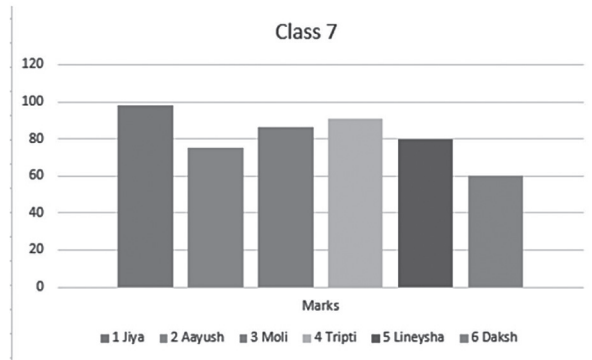
4. Answer the following questions.

(a) Name five different types of chart available in MS Excel. Mention the significance of each.

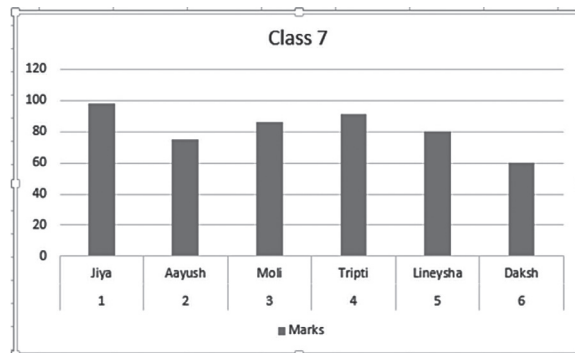**Ans.** Excel provides a number of chart types to represent your data. Five chart types are described below:

○ **Line Chart:** The line chart is one of the most frequently used chart types, typically used to show trends over a period of time. If you need to chart changes over time, consider using a line chart.
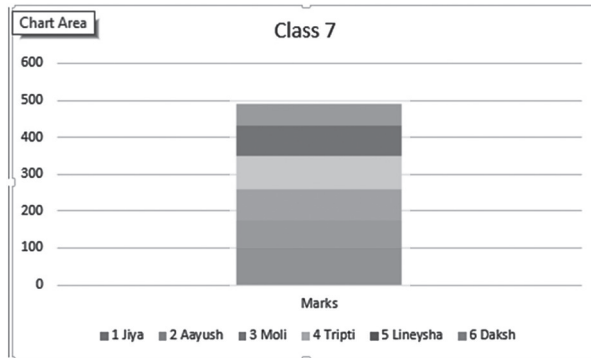

Class 7

○ **Column Chart:** Column charts are typically used to compare several items in a specific range of values. These charts are ideal if you need to compare a single category of data between individual sub-items, such as comparing marks of different students.
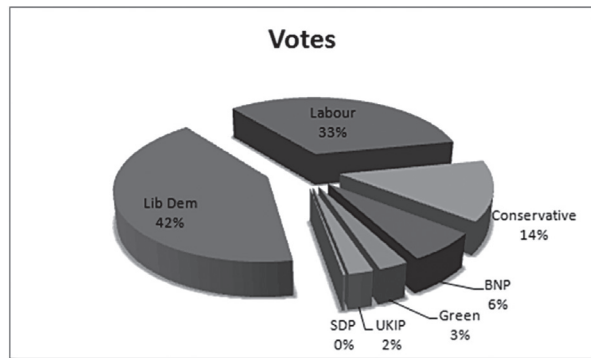

○ **Clustered Column Chart:** A clustered column chart can be used if you need to compare multiple categories of data within individual sub-items as well as between sub-items.

○ **Stacked Column Chart:** A stacked column chart allows you to compare items in a specific range of values as well as show the relationship of the individual sub-items with the whole.

○ **Pie Chart:** A pie chart shows the size of items that make up a data series, proportional to the sum of the items. Pie charts make it easy to compare proportions. Each value is shown as a slice of the pie, so it's easy to see which values make up the percentage of a whole.

(b) Write briefly about any five chart elements.

Ans. The following is a short description of the various elements of a chart:

○ **Chart area:** Everything inside the chart window, including all parts of the chart (labels, axes, data markers, tick marks and other elements are listed here).

○ **Data series:** A group of related values, such as all the values in a single row in the chart. A chart can have one or more data series.

○ **Axis:** A line that serves as a major reference for plotting data in a chart. In two-dimensional charts, there are two axes – the x-axis (horizontal/category) and the y-axis (vertical/value). In

most two-dimensional charts (except bar charts), Excel plots categories (labels) along the x-axis and values (numbers) along the y-axis. Bar charts reverse the scheme, plotting values along the x-axis. Pie charts have no axes. Three-dimensional charts have an x-axis, a y-axis, and a z-axis. The x- and y-axes create a boundary for the horizontal surface of the chart. The z-axis is the vertical axis, showing the depth of the third dimension in the chart.

○ **Plot area:** It is the area where Excel plots your data, including the axes and all markers that represent data points.

○ **Gridlines:** These are optional lines extending from the tick marks across the plot area, thus making it easier to view the data values represented by the tick marks.

(c) Differentiate between a bar chart and a column chart.

Ans. The only difference between a bar chart and a column chart is that in the bar chart, the values are represented on the x-axis and the categories on the y-axis.

(d) Which chart type will be appropriate to show trends in data at equal intervals?

Ans. The line chart. It is one of the most frequently used chart types, typically used to show trends over a period of time. If you need to chart changes over time, consider using a line chart.

(e) Can you change the chart type in Excel? If yes, write the steps to do so.

Ans. You can easily change a chart type to another at any time through these simple steps:

1. Select the already created chart.

2. In the Design tab, under the Chart Tools tab, click the Change Chart Type option in the Type group.

3. On the left side panel that appears, click the desired chart type, for example, Column.

4. Click OK. The chart type gets converted.

COMPUTER TIME

Prepare a worksheet in MS Excel 2013 that records the academic performance of 20 students of your class at all the different levels of exams conducted in the school. Do the following:

1. Enter required data.
2. Calculate the total marks scored by each student at the end of each term.
3. Calculate subject-wise averages.
4. Calculate the maximum and minimum marks scored (subject-wise).
5. Create an appropriate chart to depict comparison of percentage marks of all students.
6. Also create a chart to compare the average marks of Science and Maths.
7. Move both the charts to another worksheet in the same workbook.
8. Save the worksheet.

Ans. Do it yourself.

Answers of Suggested Class Activities

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

Answers of Worksheet

I. **1.** pictorial **2.** X; Y **3.** Column **4.** pie **5.** Format
II. **1.** T **2.** F **3.** F **4.** T **5.** F
III. **1.** (d) **2.** (b) **3.** (a) **4.** (a) **5.** (a)

4. Excel as Database

Answers of Book

DO AND LEARN!

1. Fill in the blanks.

Ans. (a) The basic format for storing data in an Excel database is a **database**.

(b) Each individual row of data in a database is known as a **record**.

(c) The headings given to each column to identify the data it contains are called **field names**.

(d) **Sorting** is the process of arranging data in a certain sequence or order, may be alphabetically or numerically.

(e) A **form** in Excel has many different buttons.

2. Write True (T) or False (F).

Ans. (a) Microsoft Excel has built-in tools to keep track of data and find specific information. `T`

(b) While entering data in Excel, it is important to ensure that it is entered incorrectly. `F`

(c) A record must contain data about only one specific item. `T`

(d) Field names are used to ensure that the data for each record is entered in a different sequence. `F`

(e) Once the data has been entered, it cannot be converted into a table. `F`

3. Tick (✓) the correct option:

Ans. (a) To convert data into a table, go to the Home tab and select **Format as Table** to open the drop-down menu.

   (i) Conditional Formatting   **(ii) Format as Table**

  (iii) Cell Styles   (iv) Format

(b) Columns in an Excel database are referred to as **Fields**.

    (i) Fields   (ii) Records

    (iii) Field names   (iv) None of these

(c) While adding a form on the Quick Access Toolbar, in the 'Excel Options' dialog box that opens, select the **All Commands** option from the drop-down menu.

    (i) Popular Commands

    (ii) Commands Not In Ribbon

    (iii) All Commands

    (iv) Macros

(d) If you're editing an existing entry, you can **Restore** the previous data in the form.

    (i) Restore   (ii) Copy

    (iii) Share   (iv) None of these

(e) **Conditional Formatting** tool helps in formatting selected cells on the basis of defined rule or condition.

    (i) Sorting   (ii) Filtering

    (iii) Chart   **(iv) Conditional Formatting**

4. Answer the following questions.

(a) Write a short note on:

    (i) Records

    (ii) Fields

Ans. (i) Each row of data in a database is known as a record. When entering records, keep these guidelines in mind:

    ○ Do not leave any blank rows in the table. This includes not leaving a blank row between the column headings and the first row of data.

    ○ A record must contain data about only one specific item.

    ○ A record must also contain all the data in the database about that item. There can't be information about an item in more than one row.

(ii) While rows in an Excel database are referred to as records, the columns are known as fields. Each column needs a heading to identify the data it contains. These headings are called field names. Remember these points about fields:

○ Field names are used to ensure that the data for each record is entered in the same sequence.

○ Data in a column must be entered using the same format. If you start entering numbers as digits (such as 10 or 20), then keep it same. Don't change in between and begin entering numbers as words (such as ten or twenty). Be consistent.

○ The table must not contain any blank columns.

(b) Explain any three parts of a form.

Ans. A form in Excel has many different buttons. Here is a brief description of what each button is about:

○ New: This will clear any existing data in the form and allow you to create a new record.

○ Delete: This allows you to delete an existing record.

○ Restore: If you're editing an existing entry, you can restore the previous data in the form (if you haven't clicked New or pressed Enter).

(c) Differentiate between sorting and filtering of data.

Ans. Sorting means arranging selected data in a certain sequence. For example, arranging names in ascending order alphabetically.

Filter is used to select the desired data following some criteria. For example, displaying names starting with letter N.

(d) Mr Aditya wants to add a Form button on the Quick Assess Toolbar, but he doesn't know how to do it. Suggest him the steps to add the button.

Ans. Below are the steps to add a data entry form option to the Quick Access Toolbar:

1. Right-click on any of the existing icons in the Quick Access Toolbar.

2. Select the Customize Quick Access Toolbar option.

3. In the Excel Options dialog box that opens, select the All Commands option from the drop-down menu.

4. Scroll down the list of commands and select Form.

5. Click the Add button.

6. Click OK.

7. The above steps would add the Form icon to the Quick Access Toolbar.

8. Once you have the icon in the Quick Access Toolbar, you can click any cell in your database (in which you want to make the entry) and click on the Form icon.

(e) Write down the steps that are used to convert data into a table.

Ans. Once the data has been entered, it can be converted into a table. To convert data into a table, follow these steps:

1. Select the data to be converted in the table (Cells A1 to F8, for example).

2. Highlight the cells A1 to F8 in the worksheet.

3. Select the Home tab.

4. Select Format as Table to open the drop-down menu.

5. Choose the blue Table Style Medium 9 option to open the Format as Table dialog box.

6. While the Format as Table menu is open, cells A1 to F8 on the worksheet are surrounded by dotted lines.

7. If the dotted line surrounds the correct range of cells, select OK in the Format as Table dialog box.

8. If the dotted line does not surround the correct range of cells, highlight the correct range in the worksheet and then select OK in the Format as Table dialog box.

9. Drop-down arrows are added beside each field name and the table rows are formatted in alternating light and dark blue.

(f) A range of cells from A1 to A10 contains names and the name 'Amit' appears three times in this range. Write steps to fill colour

'grey' in only the cells that contain the name 'Amit'.

Ans. The steps are as follows:

1. Select the range A1 to A10.
2. Click Conditional Formatting in the Home tab.
3. Click the New Rule option.
4. Click the New Formatting Rule and then choose the Format only cells that contain option.
5. Under Format only cells with: option, choose:

   Cell Value → equal to
6. Type Amit in the third box.
7. Now click the format button.
8. From Format cells dialog box, click the Fill tab.
9. Choose 'grey' colour and click OK.
10. Click OK in the previous window also.

COMPUTER TIME!

Create a table that contains the records of visitors entering your society using Form tool of MS Excel 2013.

Ans. Do it yourself.

Answers of Suggested Class Activities

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

Answers of Worksheet

I.   **1.** Conditional formatting   **2.** Filters   **3.** sorting
     4. record   **5.** field

II.   **1.** F   **2.** F   **3.** T   **4.** T   **5.** T

III.   **1.** (a)   **2.** (d)   **3.** (c)   **4.** (a)   **3.** (d)

5. Introduction to Photoshop

Answers of Book

DO AND LEARN!

1. Fill in the blanks.

Ans. (a) Photoshop uses a **photo** editing system that enables image creation and altering with multiple overlays that support transparency.

(b) The **Paint Bucket** tool fills similarly coloured areas with the foreground colour.

(c) **Drawing Canvas** is present in the centre of the Photoshop window where all the photo editing takes place.

(d) Each pane that carries options for working with your file in Photoshop is known as **Palette**.

(e) The **toolbox** is the most important user interface that includes the primary tools to work with graphics.

2. Write True (T) or False (F).

Ans. (a) Shadows and other effects cannot be added to the layers. [F]

(b) The Color mode attribute of Photoshop gives you three choices: Bitmap, Grayscale, and RGB Color. [T]

(c) The resolution depends upon the dimensions of the file. [F]

(d) To view the name of a tool button, hold your mouse pointer over the tool you want to see, and the name will appear as a tool tip. [T]

(e) The Magic Wand tool selects similarly coloured areas. [T]

3. **Tick (✓) the correct option.**

Ans. (a) If you're planning to upload an image to the Web, you should use the **Save for Web** option to save it.

   (i) Common file formats   (ii) PSD
   (iii) Save for Web   (iv) None of these

   (b) This value dynamically changes when you change the Width, Height, and Resolution values.

   (i) Resolution   (ii) Color Mode
   (iii) Dimension   **(iv) Image Size**

   (c) The **Eyedropper** tool samples any colour in an image and sets the foreground colour to it.

   (i) Color Sampler   (ii) Dodge
   (iii) Eyedropper   (iv) Pen

   (d) Adobe Photoshop software is extensively used for **all of these**.

   (i) raster image editing   (ii) graphic designing
   (iii) digital art   **(iv) all of these**

   (e) There are mainly **five** powerful components of Photoshop that will help you get your desired photo.

   (i) two   (ii) four
   (iii) five   (iv) six

4. **Answer the following questions.**

   (a) Write any four uses of Photoshop.

Ans. Photoshop is basically used for the following:
   ○ Creating logos, posters, banners, flyers
   ○ Website designing
   ○ Patterns and texture designing
   ○ Touching up pictures

   (b) Name the five components of the Adobe Photoshop window.

Ans. 1. Menu Bar

2. Option Bar

3. Toolbox

4. Drawing Canvas

5. Palettes

(c) What are slices?

Ans. The Slice tool creates slices. Slices allow you to split a large image in Photoshop so that it can be loaded quickly on the Internet.

(d) Write briefly about each of the following:

(i) Adobe Photoshop

(ii) Art History Brush tool

(iii) Saving options in Photoshop

Ans. (i) Photoshop is Adobe's photo editing, image creation and graphic design software. Although it is used by designers and graphic artists, its main focus is as a tool for photographers. It allows us to import images in traditional digital photo formats such as jpeg, tiff, BMP and RAW.

(ii) The Art History Brush tool paints with stylised strokes that simulate the look of different paint styles, using a selected state or snapshot.

(iii) When saving a file in Photoshop, you have several options and file formats to choose from. PSD is the default the file type for Photoshop documents, although you won't necessarily use it for every image. It will save your layers and all the other information so that you can re-edit them later. Apart from this, you can save images in a variety of common file types including JPEG and PNG. These file formats can be viewed and edited on almost any computer or mobile device, which make them suitable for sharing with others.

If you're planning to upload an image to the Web, like on a blog or a website, you should use the Save for Web feature. This feature allows you to save images that are optimised for the Web, which will make them easier to download and view online.
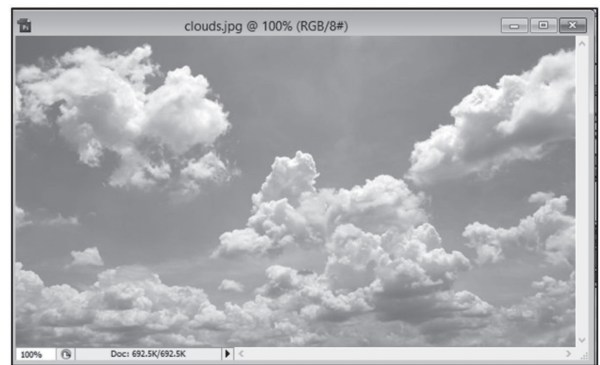
(e) Explain any three attributes of a new file created with Adobe Photoshop.

Ans. Three attributes of a new file created in Photoshop:

  (i)   Name: Type a name for your file.

  (ii) Preset: From the drop-down list, you can select from a number of different sizes.

  (iii) Size: You can select a preset size from a long drop-down list. This is optional because you can change the file attributes in the other text boxes and drop-down menus.

COMPUTER TIME!

1. Start Photoshop on your computer and follow these steps to merge two pictures:

2. With the help of your teacher, get two pictures saved on your computer. One of Alladin and Jasmine on a flying carpet and the other of clouds in the sky, as shown on the next page.

3. Using the **Magnetic Lasso tool**, cut the first picture so that only the picture is cut without the surrounding background.

4. Click the **Move tool** and drag the cut picture on the picture of clouds.

5. Press the **CTRL+T** keys to activate the **Transform** tool and adjust the size as per the requirement.

6. Click on any other tool on the toolbox.

7. A dialog box appears. Select the **Apply** option.

8. You will get the merged picture as shown in the figure below.
9. Save the Photoshop file as **alladin on clouds.pad.**

Answers of Suggested Class Activities

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

Answers of Worksheet

I. **1.** Marquee **2.** Magic Wand **3.** palette **4.** Gradient **5.** Crop

II. **1.** T **2.** F **3.** T **4.** F **5.** T

III. **1.** (a) **2.** (b) **3.** (a) **4.** (b) **5.** (c)

6. Introduction to HTML

Answers of Book

DO AND LEARN!

1. Fill in the blanks.

Ans. (a) A **Web page** is a simple document displayable by a browser.

(b) A **Website** is a collection of linked web pages that share a unique domain name.

(c) **Hyperlink** defines the link between the web pages.

(d) An **HTML editor** is an application that helps you create HTML pages.

(e) A basic HTML page is a document that typically has the file extension **.html** .

2. Write True (T) or False (F).

Ans. (a) A website is a collection of web pages with information on a subject. `T`

(b) Sub-topic page is the initial page of a web site. `F`

(c) HTML stands for Hyper Text Markup Level. `F`

(d) HTML editors usually highlight your code so that it's easier to read. `T`

(e) HTML elements and tags work together to markup content. `T`

3. Tick (✓) the correct option.

Ans. (a) The structure of a website is as follows:

(i) Main Topic Pages, Home page, Sub-Topic Pages, Posts

(ii) Home page, Main Topic Pages, Sub-Topic Pages, Posts

(iii) Sub-Topic Pages, Home page, Main Topic Pages, Posts

(iv) Posts, Main Topic Pages, Home page, Sub-Topic Pages

(b) There are **two** types of HTML Editor.

    (i) four   (ii) five

   (iii) two   (iv) three

(c) WYSIWYM stands for **What You See Is What You Mean**.

    (i) What You See Is What You Move

    (ii) What You See Is What You Make

   (iii) What You See Is What You Mean

    (iv) What You See Is What You Mark

(d) In HTML, the letter "p" represents the **paragraph** element.

    (i) pointing

    (ii) part of

    (iii) prior

   (iv) paragraph

(e) </p> represents a **closing** tag.

    (i) opening   **(ii) closing**

    (iii) empty   (iv) None of these

4. Answer the following questions.

(a) Name the HTML elements that can be used inside the <head> element.

Ans. The HTML elements that can be used inside the <head> element are:

<base>

<link>

<meta>

<noscript>

<script>

<style>

<title> (required)

(b) Differentiate between a website and a web page.

Ans. A web page is a simple document displayable by a browser. Such documents are written in the HTML language. A website is a collection of linked web pages that share a unique domain name. Each web page of a given website provides explicit links – most of the time in the form of a clickable portion of text – that allow the user to move from one page of the website to another.

(c) Write the features of HTML.

Ans. Features of HTML:

○ Easy to use and learn.

○ Easy to implement.

○ Platform independent.

○ Images, video and audio can be added to a web age.

○ Hypertext can be added to text.

○ Consists of a series of elements that tells the browser how to display the content.

○ HTML elements are represented by tags.

○ HTML tags label pieces of content such as "heading", "paragraph", "table", and so on.

○ Browsers do not display the HTML tags but use them to render the content of the page.

(d) Write briefly about HTML head element.

Ans. The HTML head element is a container that can include a number of HTML elements that are not visible parts of the page rendered by the browser. These elements are either metadata that describe information about the page or are helping pull in external resources like CSS stylesheets or JavaScript files.

The <title> element is the only element that is required to be contained within the <head> tags. The content within this element is displayed as the page title in the tab of the browser and is also what search engines use to identify the title of a page.

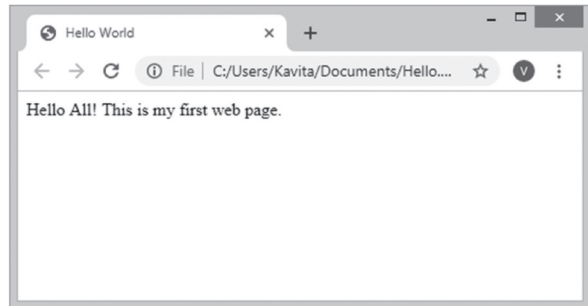(e) Write the steps to create a web page.

Ans. You can create a web page by following these steps:

1. Open your Text Editor (Notepad).
2. Enter the following code in Notepad.
3. Click on File and select Save As to save the document.
4. In the Save As dialog box, give the location where you have to save the file and give the file name as Hello.html and click on Save button.
5. To preview your html document, go to the folder where your file is saved and open the hello.html file. Your browser should open up and your page will appear as shown.

COMPUTER TIME

Create a simple web page on the topic 'My favourite flower'. Type three paragraphs about the flower you love. You may search for information on that flower from the Internet.

Ans.   Do it yourself.

Answers of Suggested Class Activities

1. HTML   **2.** WYSIWYG   **3.** TEXT   **4.** ATTRIBUTE   **5.** TAG

Answers of Worksheet

I.   **1.** Element   **2.** browser   **3.** </html>
   4. Hyper Text Markup Language   **5.** web pages
II.   **1.** T   **2.** F   **3.** F   **4.** F   **5.** T
III.   **1.** (b)   **2.** (a)   **3.** (b)   **4.** (a)   **5.** (a)

7. More About HTML

Answers of Book

DO AND LEARN!

1. Fill in the blanks.

Ans. (a) __CSS__ is a simple design language intended to simplify the process of making web pages presentable.

(b) In HTML, images are defined with the __<img>__ tag.

(c) The __alt__ attribute provides an alternate text for an image in case the user cannot view it for some reason.

(d) Most commonly, CSS is combined with the markup languages **HTML** or **XHTML** .

(e) __Inline__ CSS is used to apply a unique style to a single HTML element.

2. Write True (T) or False (F).

Ans. (a) CSS is difficult to learn and understand. $\boxed{F}$

(b) You can write CSS once and then reuse same sheet in multiple HTML pages. $\boxed{T}$

(c) An external style sheet is used to define the style for only one HTML page. $\boxed{F}$

(d) The <img> tag contains attributes only and does not have a closing tag. $\boxed{T}$

(e) The src attribute specifies the URL (web address) of an image. $\boxed{T}$

3. Tick (✓) the correct option.

Ans. (a) CSS can be added to HTML elements in __three__ ways.

    (i) two   **(ii) three**

    (iii) four   (iv) five

(b) The width and height attributes always define the width and height of an image in **pixels**.

    (i) inches   (ii) metres

    (iii) pixels   (iv) centimetres

(c) A/An **inline** CSS is used to define a style for a single HTML page.

    (i) internal   **(ii) inline**

    (iii) external   (iv) central

(d) The CSS font family property defines the **font** to be used.

    (i) font colour   (ii) font size

    (iii) text colour   **(iv) font**

(e) An external style sheet file must not contain any HTML code, and must be saved with a **.css** extension.

    (i) .ess   (ii) .ics

    (iii) .css   (iv) .iss

4. Answer the following questions.

(a) Write a short note on CSS.

Ans. Cascading Style Sheets, or CSS, is a simple design language intended to simplify the process of making web pages presentable.

CSS handles the look and feel part of a web page. Using CSS, you can control the colour of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colours are used, layout designs and variations in display for different devices and screen sizes as well as a variety of other effects.

CSS is easy to learn and understand. It provides powerful control over the presentation of an HTML document. Generally, CSS is combined with the markup language HTML or XHTML.

(b) Write the advantages of using CSS.

Ans. The following are the advantages of using CSS:

  (i) Saves time: You can write CSS once and then reuse the same sheet in multiple HTML pages. You can define a style for each

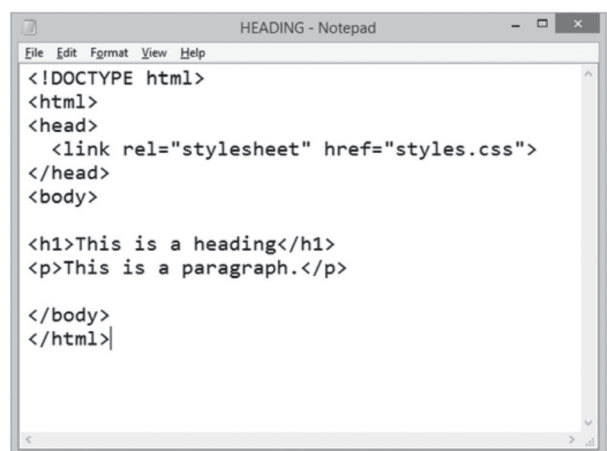HTML element and apply it to as many web pages as you want.

(ii) Pages load faster: If you are using CSS, you do not need to write HTML tag attributes every time. Just write one CSS rule of a tag and apply it to all the occurrences of that tag. So less code means faster download times.

(iii) Easy maintenance: To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.

(iv) Superior styles to HTML: CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.

(v) Multiple Device Compatibility: Style sheets allow content to be optimised for more than one type of device. By using the same HTML document, different versions of a website can be presented for hand-held devices such as PDAs and cell phones or for printing.

(vi) Global web standards: HTML attributes are being deprecated nowadays and it is being recommended to use CSS. So it's a good idea to start using CSS in all the HTML pages to make them compatible to future browsers.

(c) Discuss external CSS with an example.

Ans. An external style sheet is used to define the style for many HTML pages.

With an external style sheet, you can change the look of an entire website, by changing one file.

To use an external style sheet, add a link to it in the <head> section of the HTML page. For example:

```
HEADING - Notepad
File  Edit  Format  View  Help
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" href="styles.css">
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```
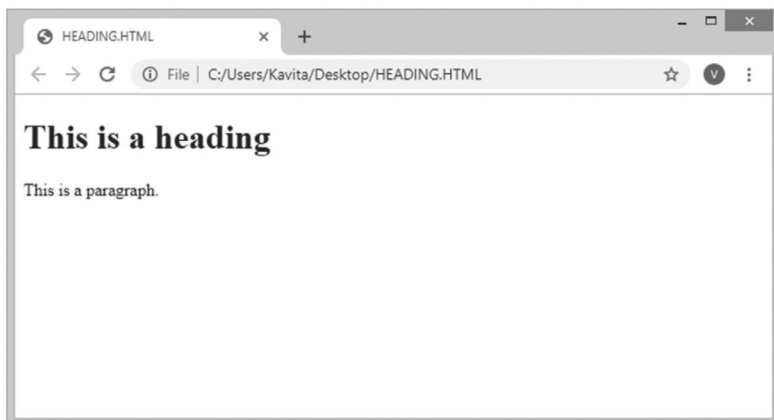
Output: It will be shown in the browser like this:

(d) What is the use of the alt attribute of an HTML image?

Ans. The alt attribute provides an alternate text for an image in case the user cannot view it for some reason. (Slow connection, an error in the src attribute or if the user is using a screen reader).

The value of the alt attribute should describe the image. If a browser cannot find an image, it will display the value of the alt attribute.

(e) Write briefly about the background colour of an HTML element.

Ans. The background-color property specifies the background colour of an element with CSS. A colour is most often specified by:
- A valid colour name, such as "red"
- A HEX value, such as "#ff0000"
- An RGB value, such as "rgb(255,0,0)"

COMPUTER TIME

Do you remember the simple web page on the topic 'My favourite flower' that you created as part of the project work in previous lesson? Now, do the following additions in the same web page:

1. Apply an appropriate background in the web page.
2. Insert at least four relevant pictures in the web page.
3. Give an appropriate heading to your web page.
4. Use CSS tags wherever possible.

Ans. Do it yourself.

Answers of Suggested Class Activities

1 and 2: Students can do these on their own. They can take help of the teacher, if required.

Answers of Worksheet

I. **1.** CSS   **2.** design   **3.** inline; internal; external   **4.** Inline
   5. Internal   **6.** External   **7.** color   **8.** font-family   **9.** <img>
   10. alt

II. **1.** (c)   **2.** (d)   **3.** (e)   **4.** (b)   **5.** (a)

III. **1.** <!DOCTYPE html>   **2.** <style>
   3. body {background-color: red;}
   4. body {background-image: url ("tree.jpg");}
   5. <img src="rose.jpg">

8. List and Tables in HTML

Answers of Book

DO AND LEARN!

1. Fill in the blanks.

Ans. (a) **Unordered** list is a list of related items whose order does not matter.

(b) Using the **None** list style property, the list items will not be marked.

(c) **Definition** lists are used to outline multiple terms and their descriptions.

(d) While **nesting** lists, one must know where to begin and end each list and list item.

(e) When adding a description list, the **<dt>** element must come before the **<dd>** element.

2. Write True (T) or False (F).

Ans. (a) You can create a table using the <table> element. | T |

(b) By default, the caption appears at the end of the table. | F |

(c) We can use only numbers to arrange list items with an ordered list. | F |

(d) By default, borders around tables and their cells are separated from each other. | T |

(e) To mark up list items, the description list requires two block-level elements. | T |

3. Tick (✓) the correct option.

Ans. (a) **Spanning** allows you to extend table rows and columns across multiple other rows and columns.

   (i) Nesting   (ii) Captions

  (iii) Spanning   (iv) Borders

(b) **Ordered list** is a list of related items where the order in which the items are represented is important.

  (i) Ordered list

  (ii) Unordered list

  (iii) Description list

  (iv) Nested list

(c) By default, most browsers add a vertical margin and **left** padding to the <ul> element.

(i) right	(ii) centre
(iii) left	(iv) justified

(d) To add more space around the content in the table cells, you can use the CSS **padding** property.

(i) text-align	(ii) border collapse
(iii) list style	**(iv) padding**

(e) The colspan attribute extends a cell to be as wide as **two** or more cells.

(i) five	(ii) four
(iii) three	**(iv) two**

4. Answer the following questions.

(a) Define a 'list item marker'.

Ans. The <li> list item marker is used with the <ol> and <ul> tags to define each item or point in a list.

(b) Write a short note on list style property of HTML.

Ans. The CSS list-style-type-property is used to define the style of the list item marker. For example, <ul style = "list-style-type:disc;"> will give disc type of bullets for the list items in an unorderd list. Similarly, <ol style="list-style-type:ower alpha"> will give the order of a list as a, b, c:….

(c) Differentiate between the following with examples:

  (i) Colspan attribute and rowspan attribute

  (ii) Ordered list and unordered list

Ans. (i) The colspan attribute with the <th> or <td> tag under the <table> tag is used to span multiple columns. The rowspan attribute, on the other hand, will help to span multiple rows.

(ii) An ordered list is a list of items having a specific order on priority basis whereas in an unordered list, individual items in the list have no priority.

(d) Write briefly about the type attribute of the <ol> tag.

Ans. The type attribute of the <ol> tag defines the type of the list item marker.

Value	Description
Decimal (Default)	The list items will be orderly arranged with numbers (default).
Upper-alpha	The list items will be orderly arranged with uppercase letters.
Lower-alpha	The list items will be orderly arranged with lowercase letters.
Upper-roman	The list items will be orderly arranged with uppercase Roman numbers.
Lower-roman	The list items will be orderly arranged with lowercase Roman numbers.

(e) Discuss the nesting of lists with HTML by giving an example.

Ans. One feature that makes lists extremely powerful is their ability to be nested. Every list may be placed within another list; they can be nested continually.

While nesting lists, one must know where to begin and end each list and list item.

To nest a list rather than closing a list item, begin a new list. Once the nested list is complete and closed, close the wrapping list item and continue on with the original list.
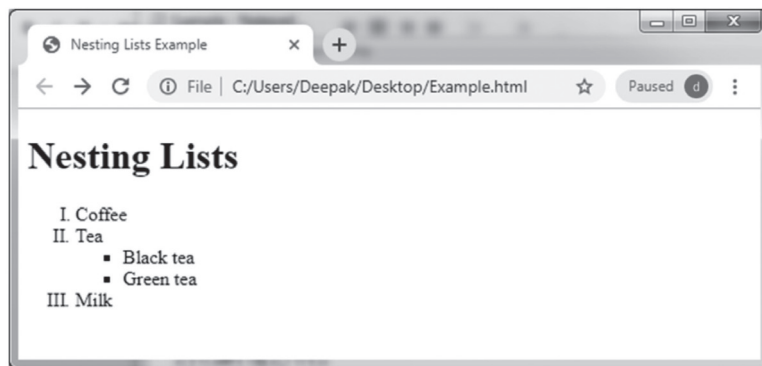
Consider the following HTML code:

The output for the given code is:

    (f) Write down the tags required for creating a table in HTML.

Ans. You can create a table using the <table> element.

Element	Use
<table>	Creates the table itself.
<caption>	Gives a caption for the table.
<tr>	Creates a table row.
<th>	Creates a table cell that is a header.
<td>	Creates a table cell that is data.

COMPUTER TIME

1. Pick up any question paper that was conducted in your school containing multiple choice questions. Create an HTML document using listing elements to create the question paper.

Ans. Do it yourself.

2. Use HTML and CSS to generate the following table displaying colour name and their codes:

HTML/CSS Name	Hex Code #RRGGBB
Black	#000000
White	#FFFFFF
Red	#FF0000
Lime	#0000FF
Blue	#0000FF
Yellow	#FFFF00
Cyan/Aqua	#00FFFF
Magenta/Fuchsia	#FF00FF

Ans. Do it yourself.

Answers of Suggested Class Activities

A. and B: Students can do these with help from the teacher.

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

Answers of Worksheet

I. 1. <table>　**2.** type　**3.** colspan　**4.** 　**5.**

II. 1. F　**2.** F　**3.** T　**4.** F　**5.** T

III. 1. (c)　**2.** (b)　**3.** (a)　**4.** (d)　**5.** (c)

9. More on Python

Answers of Book

DO AND LEARN!

1. Fill in the blanks.

Ans. (a) Fundamentals of Python is divided into two categories: **tokens** and **literals**.

(b) **Token** is the smallest unit inside a program.

(c) **Keywords** are a set of special words which are reserved by Python and have specific meanings.

(d) **Literals** can be defined as data that is given in a variable or constant.

(e) **Numeric** literals are immutable (unchangeable).

2. Write True (T) or False (F).

Ans. (a) Tokens can be defined as a punctuation mark, reserved words or each individual word in a statement. `T`

(b) Keywords in Python are not case sensitive. `F`

(c) In Python, we need not specify the type of variable. `T`

(d) 4b is a valid identifier value. `F`

(e) In Python, the user is not bound to declare a variable before using it in the application. `T`

3. Tick (✓) the correct option.

Ans. (a) **Variable**, also known as identifier, is used to hold a value.

    (i) Variable   (ii) Comment

    (iii) Literal   (iv) Operator

(b) It is always recommended to use **lower case** for variable names.

    (i) Upper case   (ii) numbers

    (iii) lower case

    (iv) mix of upper case and lower case

(c) The __=__ operator is used to assign a value to a variable.

    (i) +   **(ii) =**

    (iii) -   (iv) *

(d) A **character** literal is a single character surrounded by single or double quotes.

    (i) character   (ii) string

    (iii) numeric   (iv) collection

(e) Numeric literals can belong to **three** different numerical types.

    (i) five   (ii) four

    (iii) three   (iv) two

4. Answer the following questions.

(a) What do you understand by operator precedence in Python? Why is it used?

Ans. The precedence of the operators is important to find out the correct answer as it enables you to know which operator should be evaluated first.

(b) Differentiate between string literal and character literal.

Ans. A string literal is a sequence of characters surrounded by quotes. We can use single, double or triple quotes for a string.

A character literal, on the other hand, is a single character surrounded by single or double quotes.

(c) Write the use of the following arithmetic operators.

    (i) Floor division

    (ii) Remainder

    (iii) Exponent

Ans. (i) (Floor Division): It gives the floor value of the quotient produced by dividing the two operands. For example, if a = 37, b = 5, => a//b = 7.

(ii) % (Remainder): It returns the remainder after dividing the first operand by the second operand. For example, if a = 20, b = 10 => a%b = 0.

(iii) ** (Exponent): It calculates the first operand power to the second operand. For example, if a = 2, b= 4 => a**b i.e. 2**4 = 16.

(d) Write briefly about the following:

(i) Assginment operators

(ii) Comments

(iii) Membership operators

Ans. (i) Assignment operators are used to assign the value of the right expression to the left operand. The various assignment operators are described in the following table:

ASSIGNMENT OPERATORS	
Operator	**Description**
=	It assigns the value of the right expression to the left operand.
+=	It increases the value of the left operand by the value of the right operand and assign the modified value back to left operand. For example, if a = 10, b = 20 => a+ = b will be equal to a = a+ b and therefore, a = 30.
-=	It decreases the value of the left operand by the value of the right operand and assigns the modified value back to the left operand. For example, if a = 20, b = 10 => a- = b will be equal to a = a- b and therefore, a = 10.
*=	It multiplies the value of the left operand by the value of the right operand and assigns the modified value back to the left operand. For example, if a = 10, b = 20 => a* = b will be equal to a = a* b and therefore, a = 200.

%=	It divides the value of the left operand by the value of the right operand and assigns the remainder back to the left operand. For example, if a = 20, b = 10 => a % = b will be equal to a = a % b and therefore, a = 0.
**=	a**=b will be equal to a=a**b. For example, if a = 4, b =2, a**=b will assign 4**2 = 16 to a.
//=	a//=b will be equal to a = a// b. For example, if a = 4, b = 3, a//=b will assign 4//3 = 1 to a.

(ii) In Python, any statement written along with the # symbol is known as a comment. The interpreter does not interpret the comment. Comments in Python can be used to explain any program code. It can also be used to hide the code as well. Comments are the most helpful part of any program. They enables you to understand the way a program works.

A comment is not a part of a program, but it enhances the interactivity of the program and makes the program readable.

(iii) Python membership operators are used to check the membership of a value inside a data structure. If the value is present in the data structure, then the resulting value is true. Otherwise, it returns false.

MEMBERSHIP OPERATORS	
Operator	**Description**
in	It is evaluated to be true if the first operand is found in the second operand (list, tuple, or dictionary).
not in	It is evaluated to be true if the first operand is not found in the second operand (list, tuple, or dictionary).

(e) Write a short note on bitwise operators in Python.

Ans. Bitwise operators perform bit by bit operations on the values of two operands. The following table describes the various bitwise operators:

BITWISE OPERATORS	
Operator	**Description**
& (binary and)	If both the bits at the same place in two operands are 1, then 1 is copied to the result. Otherwise, 0 is copied.
| (binary or)	The resulting bit will be 0 if both the bits are zero. Otherwise, the resulting bit will be 1.
^ (binary xor)	The resulting bit will be 1 if both the bits are different. Otherwise, the resulting bit will be 0.
~ (negation)	It calculates the negation of each bit of the operand, i.e., if the bit is 0, the resulting bit will be 1 and vice versa.
<< (left shift)	The left operand value is moved left by the number of bits present in the right operand.
>> (right shift)	The left operand is moved right by the number of bits present in the right operand.

COMPUTER TIME

Try the following programs in Python. Note down the programs as well as their outputs in your notebook.

1. Enter the name and age of a person in two different variables. Print out a message addressed to them that tells them the year that they will turn 100 years old.

2. Display your half yearly Examination's date sheet.

3. Display the square and cube of a number stored in a variable.

Ans. Do it yourself.

Answers of Suggested Class Activities

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

Answers of Worksheet

I. **1.** Tokens and Comments   **2.** Token   **3.** True; False

4. Keywords, identifiers, literals, and operators   **5.** Keywords

6. case sensitive   **7.** Variables   **8.** memory location

9. letter; underscore   **10.** letter; underscore   **11.** keyword   **12.** =

13. Literals   **14.** Boolean   **15.** none

10. Multimedia and E-commerce

Answers of Book

DO AND LEARN!

1. Fill in the blanks.

Ans. (a) **Multimedia** uses a combination of different content forms such as text, audio, graphics, etc., where every type of information can be represented, stored, transmitted and processed digitally.

(b) **Multimedia presentations** may be viewed in person on stage, projected or played locally with the help of a media player.

(c) **E-commerce** is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network using the Internet.

(d) **E-learning** is learning with the use of electronic devices or technology.

(e) E-banking is also known as **Internet banking**.

2. Write True (T) or False (F).

Ans. (a) E-learning provides immediate result or feedback to the learner.　　　　　　　　　　　　　　　　T

(b) The speed of transaction is very slow with e-banking.　　F

(c) E-shopping gives you the convenience of shopping from home.　　　　　　　　　　　　　　　　　　　T

(d) The use of e-governance helps make all the functions of a business transparent.　　　　　　　　　　　T

(e) With e-commerce, the product purchased is delivered to the customer's address immediately.　　　　　F

3. **Tick (✓) the correct option.**

(a) ICT stands for **Information and Communication Technology**.

    (i) Information and Controlled Technology

    (ii) Information and Communication Technology

    (iii) Integrated Communication Technology

    (iv) Information and Communication Tracker

(b) In **education**, multimedia is used to produce computer-based training courses.

    (i) education   (ii) creative industries

    (iii) games   (iv) presentations

(c) **E-governance** or electronic governance, is the integration of Information and Communication Technology (ICT) in all the processes, with the aim of enhancing government ability to address the needs of the general public.

    (i) E-learning   (ii) E-banking

    (iii) E-governance   (iv) E-shopping

(d) **Interactivity** is a computer-based tool which allows users to choose to learn different parts of the information on their own terms.

    (i) Animation   **(ii) Interactivity**

    (iii) Presentation   (iv) None of these

(e) Transparency directly links to **accountability**.

    (i) accountability   (ii) interactivity

    (iii) speed of data transfer   (iv) security

4. **Answer the following questions.**

(a) What do you understand by transparency as one of the advantage of e-governance?

Ans. The use of e-governance helps make all functions of the business transparent. All government information can be uploaded on to the Internet. The citizens can specifically access whichever information they want, whenever they want it, at the click of a mouse or the touch of a finger.

(b) Write briefly about the following:

  (i) Uses of multimedia

 (ii) E-commerce

Ans. (i) Multimedia is useful in many different areas, such as advertising, art, education, entertainment, mathematics, research and many more. The following are some examples:

- Multimedia presentations may be viewed in person on stage, projected or played locally with the help of a media player.
- Multimedia games may be used in a physical environment with special effects with multiple users in an online network, or locally with an offline computer. It is particularly used to develop special effects in movies and animations.
- Creative industries use multimedia for a variety of purposes like fine arts, entertainment, journalism, etc.
- In education, multimedia is used to produce computer-based training courses. Lessons can be tailored and personalised to the students' varying levels of knowledge on the topic. Learning content can be available on multimedia platforms.

(ii) E-commerce or electronic commerce is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily using the Internet.

Advantages of E-commerce

- Availability
- Speed of access
- Wide availability
- Easy accessibility
- E-commerce businesses avoid the cost associated with physical stores, such as rent, inventory and cashier

Disadvantages of E-commerce

- Limited customer service
- Not being able to touch or see

○ Wait time

　　　　　　○ Security

　　(c) Write two advantages and two disadvantages each of:

　　　　(i) E-shopping

　　　　(ii) E-learning

Ans. (i) **Advantages of E-shopping**

　　　　　　○ Saves time and effort: Customers do not have to stand in queues in cash counters to pay for the products that have been purchased by them.

　　　　　　○ Convenience of shopping at home: Customers can shop from their home or workplace and do not have to spend time travelling.

　　　　　　Disadvantages of E-shopping

　　　　　　○ Shoppers do not have the ability to physically inspect or try on the items being considered for purchase.

　　　　　　○ Shoppers sometimes lose the power to negotiate the price and payment terms that may exist in local stores.

　　　(ii) **Advantages of E-learning**

　　　　　　○ Flexible: The routine of e-learning is very flexible. Students can learn when they want and wherever they want.

　　　　　　○ Anytime access to the resources: The resources are available at any time and any place.

　　　　　　Disadvantages of E-learning

　　　　　　○ Lack of human touch: There is no direct interaction with the instructor or fellow learners during the learning process.

　　　　　　○ Lack of motivation: Learners may not be motivated to take a course since they are in isolation. It requires a high level of self-discipline and self-motivation from learners.

　　(d) Write a short note on 'Types of media' used in multimedia presentations.

Ans. There are certain types of media used in multimedia presentations, from simple to complex visual and audio devices. Multimedia

components are divided as follows:

○ Text: This refers to written documents, the words seen in handouts, PowerPoint presentations, websites, and reports. One of the simplest types of media, text is also used to communicate the information and appears in conjunction with visual aids.

○ Audio: This is the sound that often accompanies visual presentations. Sound by itself can be used in radio broadcasts or online audio files, but in multimedia presentations, audio is used as a complementary media. Sound effects can help make a presentation more interesting while hearing the main points of information spoken can help listeners focus.

○ Still images: Photographs, taken either by digital or analog means, are an important part of multimedia productions. Well-placed visual aids can explain concepts with clarity.

○ Animation: Animations are graphics that move, accompanied by audio effects.

○ Video: Video is used to record interviews, create movies and post personal updates to communicate business messages. Currently, businesses can use videos online or create CDs for instructional use within their company.

COMPUTER TIME

1. Discuss with your parents if they are using the e-banking facility of any bank. List down the facilities provided by the bank to its customers. Which of the facilities provided is used often by your parents?

Ans. Do it yourself.

2. Search the Internet and list down some popular e-shopping sites.
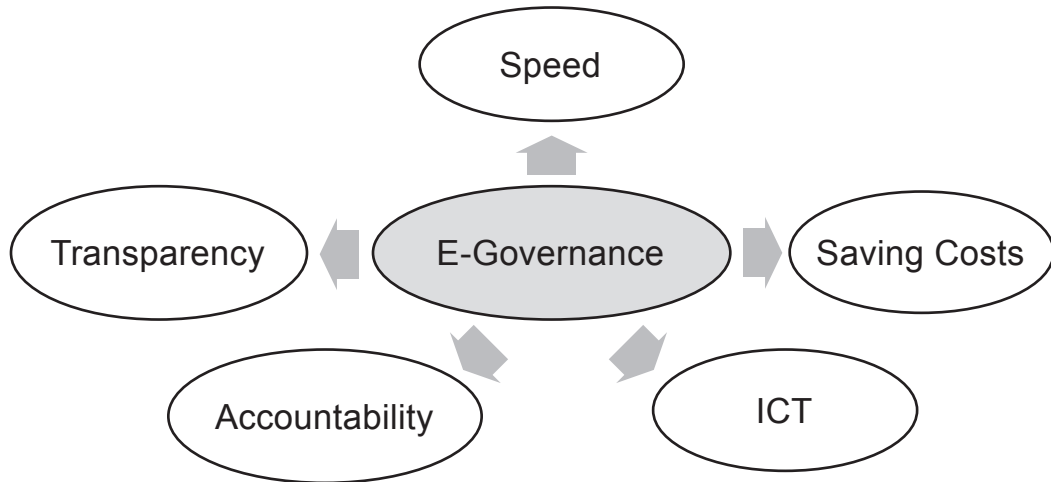
Ans. Do it yourself.

Answers of Suggested Class Activities

Students can be encouraged to do a course of their interest.

Answers of Worksheet

I. **1.** Multimedia **2.** E-shopping **3.** E-learning **4.** audio
5. E-banking

II.

```
              ┌──────────┐
              │  Speed   │
              └──────────┘
                   ▲
┌──────────────┐       ┌──────────────┐       ┌──────────────┐
│ Transparency │ ◄──── │ E-Governance │ ────► │ Saving Costs │
└──────────────┘       └──────────────┘       └──────────────┘
            ◄── ▲          ▲ ──►
    ┌────────────────┐       ┌──────┐
    │ Accountability │       │ ICT  │
    └────────────────┘       └──────┘
```

III. **1.** F **2.** T **3.** T **4.** F **5.** F

✎ TESTING TIME – 1

(BASED ON LESSONS 1 TO 4)

1. **Convert the following:**

   Ans. (a) Decimal number 29 to binary number.   **11101**

   (b) Binary number 101101_2 to decimal number.   **45**

   (c) Octal number 12570_8 to decimal number.   **5496**

   (d) Hexadecimal $19FDE_{16}$ to decimal number.   **106462**

2. **Write Agree or Disagree for each of the following statements.**

   Ans. (a) In today's mathematics, we follow the octal number system.
   Disagree

   (b) SUM and AVERAGE are functions in MS Excel.   **Agree**

   (c) It is not possible to handle bulk of data in MS Excel. **Disagree**

   (d) A database is a presentation software.   **Disagree**

   (e) Line chart is used to show the trends.   **Agree**

3. **Observe the following Excel worksheet and answer the questions that follow.**

   (a) How many rows and columns are utilised in the worksheet?

   Ans. 13 rows and 5 columns.

   (b) What is the cell address of the cell displaying Total Expenditure on Entertainment?

   Ans. E6.

   (c) Write the Excel function that is used to calculate Maximum Expenditure displayed in cell B13.

   Ans. =Max(E4:E9).

   (d) Write the Excel function that is used to calculate Total Expenditure displayed in cell B11.

   Ans. =Sum (E4:E9).

(e) Which Excel tool is used to display the headings in the first two rows so that they span over the whole worksheet columns?

Ans. Merge and center

4. Name the following.

(a) Number system whose base is 16.

Ans. Hexadecimal number system

(b) This kind of cell reference does not change when copied or filled.

Ans. Absolute cell referencing

(c) A kind of column chart in which values are represented on X-axis and categories on Y-axis.

Ans. Bar chart

(d) Individual row of data in a database.

Ans. Record

(e) Arranging data in an order.

Ans. Sorting

5. Name the chart that would be best suited to depict each of the following.

(a) Compare marks scored in Science by all the students of a class.

Ans. Column chart

(b) Show the area-wise share of sales of a product by different sales regions.

Ans. Pie chart

(c) Show the annual rainfall in Delhi over a period of the last 20 years.

Ans. Line chart

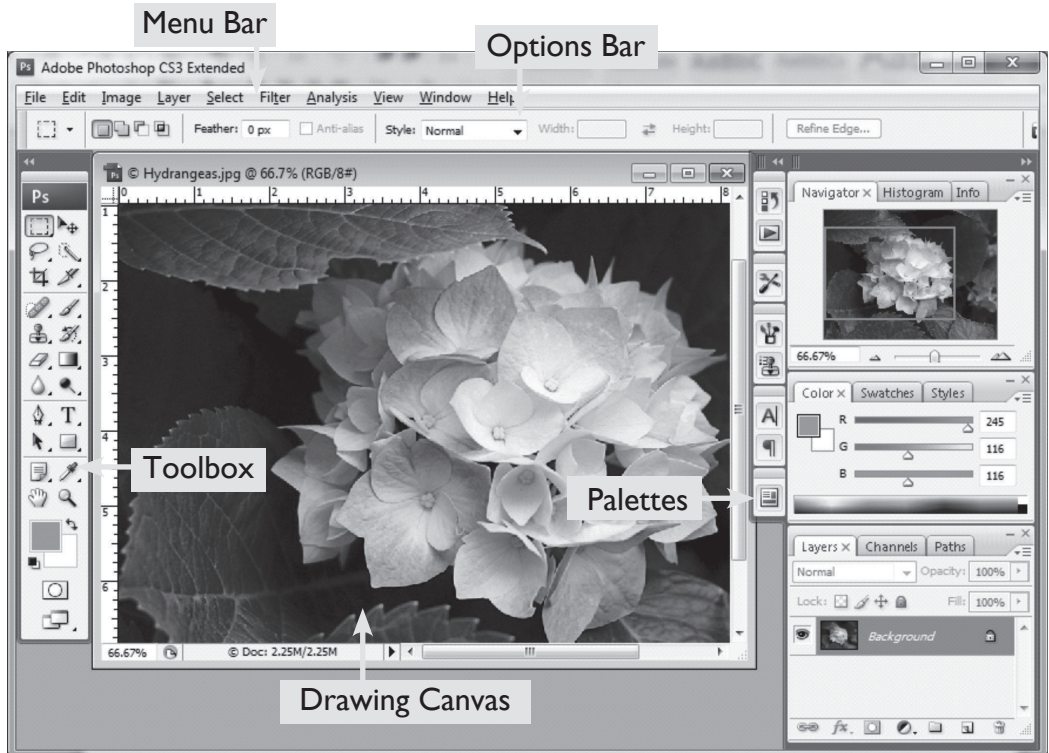(d) Compare the number of students who failed in class 10th board exams over a period of the last 10 years.

Ans. Bar chart

TESTING TIME – 2

(BASED ON LESSONS 5 TO 7)

1. Label any five parts of the following Photoshop window:

Ans.

Menu Bar · Options Bar · Toolbox · Palettes · Drawing Canvas

2. Fill in the following blanks choosing the appropriate word from the brackets.

Ans. (a) Photoshop belongs to a company named **Adobe** .

(b) The default file extension of a file saved in Photoshop is **.PSD** .

(c) A **Website** is a collection of linked web pages.

(d) 'C' in CSS stands for **Cascading**.

(e) In HTML, there are **6** levels of heading tags.

3. **Find errors in the following HTML/CSS commands and write the correct command in the space provided.**

(a) </tittle> This is the title of the webpage <tittel>

Ans. <title> This is the title of the webpage. <|title>

(b) <img color ="red">

Ans. <img src = "flower.jpg">

(c) <!DOCTYPE DOCX>

Ans. <!DOCTYPE html>

(d) <p> This is a paragraph <p>

Ans. <p> This is paragraph <|p>

(e) <h2> This is second level of heading tag. </h4>

Ans. <h2> This is the second level of heading tag <|h2>

4. **Answer the following questions.**

(a) Mention any three uses of Photoshop software.

Ans. Three uses of Photoshop software:
   ○ Creating logos, posters, banners, flyers
   ○ Designing websites
   ○ Touching up pictures

(b) Name the different options under the Marquee tool of Photoshop.

Ans. The Marquee tools make rectangular, elliptical, single row and single column selections.

(c) What do you understand by the term 'Root Element' in HTML? Give example.

Ans. The <html> element wraps around all of the other code and content in the document. This element, known as the HTML root element, always contains one <head> element and one <body> element.

(d) Write briefly about any two attributes of the <img> tag in HTML giving appropriate examples.

Ans. Two attributes of the <img> tag are width and height. You can use the style attribute to specify the width and height of an image. The

width and height attributes always define the width and height of the image in pixels.

Syntax

<img src="img_girl.jpg" alt="Girl in a jacket" style="width:500px; height:600px;">

<div align="center">OR</div>

<img src="img_girl.jpg" alt="Girl in a jacket" width="500" height="600">

(e) Name the different ways in which CSS can be added to HTML elements. Write one line about each.

Ans. CSS can be added to HTML elements in three ways:

○ Inline: By using the style attribute in HTML elements.

○ Internal: By using a <style> element in the <head> section.

○ External: By using an external CSS file.

1. Match the following:

Ans. (a) Bulleted List → (iii) Unordered List
(b) <dl> → (v) Definition Lists
(c) Border → (iv) Attribute of the <table> tag
(d) Tokens → (i) Python
(e) Online Shopping → (ii) E-Commerce

2. Samaira has created a web page using HTML. Her teacher asked her to make a table in the notebook and write all the tags she used and the attribute of each tag. She has made the following table but the tags in column A do not match the attributes in column B. Match them correctly by drawing lines.

Ans.

A	B
<OL>	Border
<IMG>	Type
<TABLE>	Start
<UL>	alt

3. From the following word grid, find any five terms related to multimedia.

Ans.

K	Z	K	X	G	G	S	U	I
Q	Y	C	S	R	A	M	S	K
A	N	I	M	A	T	I	O	N
U	O	M	U	P	T	E	U	P
D	C	A	T	H	T	Q	N	T
I	V	G	Y	I	R	G	D	I
O	Z	E	Z	C	M	X	D	V
Y	P	S	T	S	A	Z	H	D
N	M	H	Q	D	T	E	X	T

4. Create the following table using HTML and CSS elements.

Food	Measure	Calories
Whole Milk	225 ml	150
Paneer	60 gms	150
Butter	1tbsp	45
Ghee	1tbsp	45
Apple	1 (small)	50-60
Grapes	15 (small)	50-60
Cooked Rice	25 gms	80

Ans. <!DOCTYPE html>

<html>

<head><title>Measuring Calories<|title>

<style type = "text|CSS">

table, th, td {border: 1 px solid black;}

th, td {padding: 10 px;} <|style><|head>

<body>

<table> <tr bgcolor = "grey">

<th>Food<|th><th>Measure<|th><th>Calories<|th><|tr>

<tr><td>Whole Milk<td>225 ml <td>150<|tr>

<tr><td>Paneer<td>60gms<td>150<|tr>

<tr><td>Butter<td>1tbsp<td>45<|tr>

<tr><td>Ghee<td>1tbsp<td>45<|tr>

<tr><td>Apple<td>1(small)<td>50–60<|tr>

<tr><td>Grapes<td>15(small)<td>50–60<|tr>

<tr><td>Cooked Rice<td>25gms<td>80<|tr>

<|table><|body><|html>

5. Name the following:

Ans. (a) Set of special words which are reserved by Python.

<u>**Keywords**</u>

(b) Operator used to assign a value to a variable.

<u>**Assignment operators**</u>

(c) A literal that can have either of the two values:True or False.

<u>**Boolean literal**</u>

(d) Shopping online of goods.   <u>**E-shopping**</u>

(e) HTML tag to create a numbered list.   <u>**<OL>**</u>

~~PROJECT WORK~~

Ans. Do it yourself.