

**Drag and**

**Drop**

**Class - 6**

1. TERMINAL BOX
2. WORDART
3. FLOW LINES
4. CHAT
5. SCRATCH

D. Answer the following questions.

1. A flowchart is a pictorial representation of the separate steps of a process in sequential order, used for solving a specific problem.
2. Search engine is a website which we use to search information on the Internet.
3. An algorithm is a procedure or set of rules that defines how a program is to be executed, whereas a flowchart is a pictorial representation of the steps taken in solving a problem.
4. PowerPoint is a presentation software that helps the users to make presentations.
5. In Excel, a worksheet is a collection of cells where we keep and manipulate data.
6. The main difference between a web page and a website is that a web page is a single document containing text, images, videos, animation, etc., whereas a website is a collection of related web pages.
7. In Excel, the Formula box is a box which shows the cell contents along with the formulae written for that particular cell.
8. Today, the Internet has become a part of our daily life. It is because the use of the Internet makes our life easy, fast and simple.
9. Control blocks are used to control Scripts under certain conditions, which can be done by inserting conditional statements, loops, repeats, and causes.
10. Machine learning is an application of artificial intelligence that provides the system the ability to learn and improve automatically from experience without being programmed.

### Cyber Olympiad

Tick (✓) the correct option for each question.

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (d)  | 2. (a)  | 3. (c)  | 4. (b)  |
| 5. (c)  | 6. (d)  | 7. (b)  | 8. (d)  |
| 9. (c)  | 10. (c) | 11. (a) | 12. (b) |
| 13. (c) | 14. (c) | 15. (d) | 16. (a) |
| 17. (a) | 18. (B) | 19. (c) | 20. (d) |

### Activity Time

- |                  |                |
|------------------|----------------|
| (a) mouse        | (b) joystick   |
| (c) drum scanner | (d) microphone |

### Brain Teaser

The full form of:

- (a) ROM: Read Only Memory
- (b) RAM: Random Access Memory
- (c) CD: Compact Disc
- (d) DVD: Digital Video/Versatile Disc
- (e) USB: Universal Serial Bus

### Rapid Fire

1. **Pen drive** is plug-and-play device that simply plugs into a USB port of a computer.
2. **Web camera** allows you to capture images and input them into the computer.
3. **CPU** is the brain of a computer system.
4. **Touch screen** enables a user to choose available options by simply touching the icon or menu displayed on a computer's screen.

### Brain Teaser

1. 

D	V	D
---	---	---

                      2. 

C	P	U
---	---	---
3. 

C	O	N	T	R	O	L	U	N	I	T
---	---	---	---	---	---	---	---	---	---	---
4. 

D	O	T	M	A	T	R	I	X
---	---	---	---	---	---	---	---	---
5. 

P	E	N	D	R	I	V	E
---	---	---	---	---	---	---	---

### Let's Review

- A. Tick (✓) the correct option.
 

1. (c)	2. (a)	3. (c)
4. (a)	5. (b)	
- B. Write T for true and F for false statements.
 

1. F	2. T	3. F
4. T	5. F	6. F
7. T		
- C. Fill in the blanks.
  1. A **mouse** is a pointing device consisting of a plastic stick mounted on a base.
  2. Microphone contains a device called **amplifier** inside it.

3. The main circuit board of a computer which lies inside the CPU box is known as the **motherboard**.
4. Secondary storage is also known as **external memory**.
5. DVD stands for **Digital Video/Versatile Disc**.

D. Answer the following questions.

1. Devices that accept instructions and data from the users and convert them into a binary form that the computer understands are called input devices. The keyboard, the mouse, scanner, and microphone are some input devices.
2. The keys of a keyboard are classified into six main categories as given below:
  - (a) Alphanumeric keys
  - (b) Control keys
  - (c) Function keys
  - (d) Numeric keys
  - (e) Spacebar and Arrow keys
  - (f) Special keys
3. CPU, the brain of a computer, functions through the following two parts:
  - (a) **Arithmetic Logic Unit:** It is an integrated circuit within a CPU that performs arithmetic and logic operations. Arithmetic operations include addition, subtraction, and shifting operations, while logic unit includes the logical operations.
  - (b) **Control Unit:** It controls the flow of binary data or information in the computer.
4. The main difference between RAM and ROM is that RAM is a type of volatile memory in which data is kept temporary, whereas ROM is a type of non-volatile memory in which data is not lost even if the computer is switched off.
5. Output devices are computer hardware that receive data from the computer and then translate that data into usable form for the use of the user.

### Activity Time

Ten input, output and storage devices are encircled in the grid.

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

### Chapter 2 : More on Windows

#### Brain Teaser

1. (iv)
2. (viii)
3. (i)
4. (vi)
5. (ii)
6. (vii)
7. (v)
8. (iii)

#### Activity Time

1. 

G	E	T
---	---	---

H	E	L	P
---	---	---	---
2. 

B	A	C	K
---	---	---	---

B	U	T	T	O	N
---	---	---	---	---	---
3. 

S	E	A	R	C	H
---	---	---	---	---	---

B	O	X
---	---	---
4. 

A	D	D	R	E	S	S
---	---	---	---	---	---	---

B	A	R
---	---	---
5. 

D	E	T	A	I	L	S
---	---	---	---	---	---	---

P	A	N	E
---	---	---	---
6. 

M	O	R	E
---	---	---	---

O	P	T	I	O	N	S
---	---	---	---	---	---	---

#### Activity Time

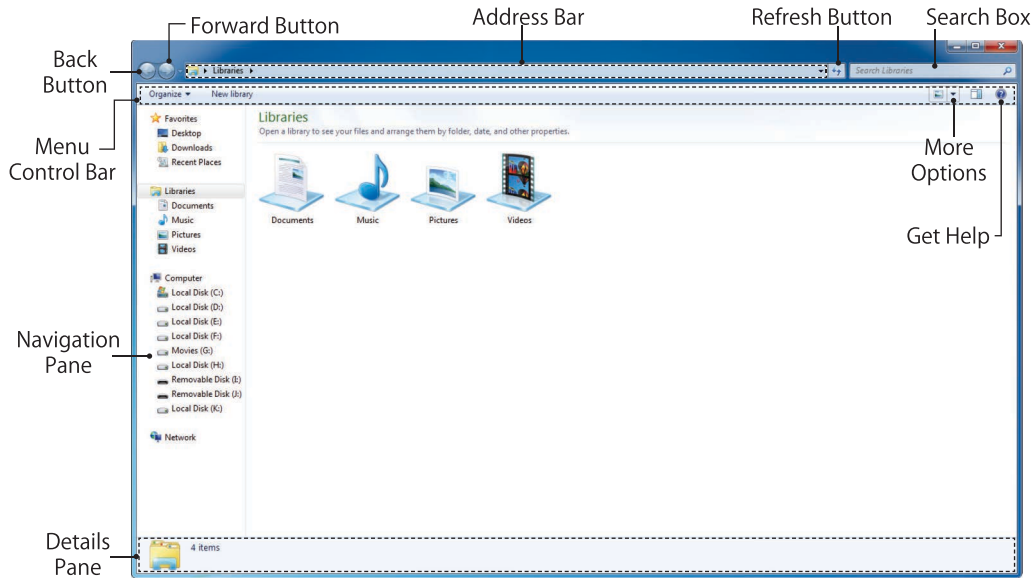
3. Select 'Cut' option
6. Click on 'Paste' option
2. Click on 'Organize' button
1. Click the file/folder that you want to move
4. Select and open the folder where you want the file or folder to be moved
5. Click on 'Organize' button

#### Rapid Fire

1. The **Windows Explorer** window is used to manage your libraries, folders and files.
2. **Medium Icons View** displays your files and folders as medium icons.
3. **Address Bar** shows the location of the current window.
4. **Favourite** area helps you to access folder or file as easily as possible.

## Activity Time

1. The students will do it themselves.
2. The labelled picture is given below.



### Let's Review

A. Tick (✓) the correct option.

1. (a)                      2. (d)                      3. (d)
4. (d)                      5. (b)

B. Fill in the blanks.

1. **Windows Explorer** window manages the resources of the computer system and does many other things.
2. **Search box** is used to find folders, files and libraries in Windows Explorer.
3. **Back** button helps to take you to previously viewed folder.
4. The **Change your view** option in Menu Control bar contains several options.
5. At the top of the Navigation pane, you will find the **Quick access**.

C. Answer the following questions.

1. The main features of the Windows 10 are:
  - File Explorer, which is the replacement of Windows Explorer of Windows 7.
  - Managing Folder: In Windows 10, you can create a new folder by right-clicking on the empty portion in the right pane of

File Explorer Window and selecting New → Folder options. Now, type the folder name.

- The Recycle Bin: It is somehow different than that of Windows 7. It has a menu bar with options File, Home, Share, View and Manage.
2. Windows 10 is a Microsoft operating system for PCs, laptops, tablets, and many more devices. It acts as an interface between the computer hardware and the user. It was officially released on 29 July 2015.
  3. Windows Explorer, also called File Explorer in Windows 10, is a graphical file management utility for the Windows operating system. It manages libraries, folders and files in the computer.
  4. Steps to create a new folder in Windows Explorer:
    - Click the New Folder option in the Menu Control Bar.
    - Write the name for the new folder.
    - Press the Enter key.

The folder with new name is created.

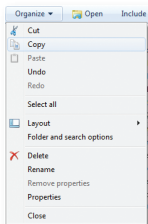
- In computer, Recycle Bin is a place where deleted files or folders or images are temporarily stored. They remain in Windows unless they are permanently deleted. If we delete anything accidentally, we can restore it from the Recycle Bin.
- Steps to delete a folder from Windows Explorer:
  - Click the folder to be deleted.
  - Click the Organize button. A drop-menu appears on the screen.
  - Select the Delete option. The Delete Folder message box appears confirming to delete the folder.
  - Click Yes to delete the folder or No to cancel the operation.

**Brain Teaser**

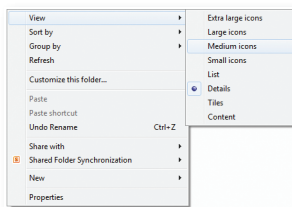
- B A C K    B U T T O N
- E M P T Y    T H E  
R E C Y C L E    B I N
- F I L E    E X P L O R E R
- M E N U    C O N T R O L

**Activity Time**

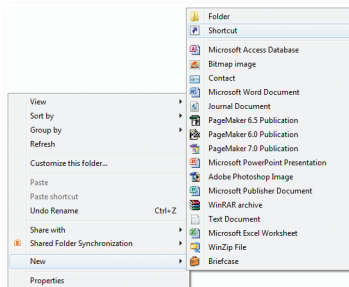
The use of the highlighted option in each menu is given below the picture.



It is used to copy the selected text or image.



It is used to resize the icons to medium.



It is used to make a new shortcut.

**Brain Teaser**

- (d)
- (f)
- (a)
- (e)
- (b)
- (c)

**Rapid Fire**

- The Title bar displays the name of the currently working document.
- Ribbon is located near the top of the screen, below the Quick Access Toolbar.
- Status bar displays the number of words in the document.
- Close button is used to close MS Word window.

**Let's Review**

- Tick (✓) the correct option.
  - (d)
  - (b)
  - (a)
  - (d)
- Write T for true and F for false statements.
  - T
  - T
  - T
  - T
  - F
- Answer the following questions.
  - A table helps to organise text and other contents on a page. It is very useful in representing data effectively. It consists of rows and columns.
  - The steps to add a table in a document:
    - Point the cursor where the table is to be added.
    - Click the **Insert** tab.
    - Click the **Table** button in the **Table** group.
    - Drag the mouse over the table cells to select the number of columns and rows in the table.
    - Left click the mouse on the bottom-right corner of the cell.

The table appears in the document.

- The steps to add a row in a table:
  - Select the row next to which the row is to be inserted.
  - Click the **Layout** tab in **Table** tools.
  - Click the **Insert Above** or **Insert Below** button in the **Rows & Columns** group.

The empty row will be inserted at the required place in the table.

- The steps to change column width in a table:
  - Select the column of which width is to be changed.
  - Click the **Layout** tab.
  - Type the value to set the width in the **Cell Size** group.

The size of the given cell gets changed.

- The steps to convert an existing text into a table:
  - Select the text to be converted into a table.
  - Click the **Insert** tab.
  - Click the **Table** option.
  - Click the **Convert Text to Table** from the menu. The **Convert Text to Table** dialog box appears on the screen.
  - Select one of the options in the **Separate text at** section and click the **tabs** option.
  - Click the OK button.

The given text will be arranged in a table form.

### Activity Time

Number of rows: 4

Number of columns: 5

Number of cells: 20

### Brain Teaser

- |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| P | R | O | O | F | I | N | G |
|---|---|---|---|---|---|---|---|
- |   |   |   |   |   |
|---|---|---|---|---|
| R | U | L | E | R |
|---|---|---|---|---|
- |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | U | T | O | F | I | T | W | I | N | D | O | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| I | N | S | E | R | T |
|---|---|---|---|---|---|

### Chapter 4 : More on MS PowerPoint 2016

#### Rapid Fire

- To insert bulleted and numbered lists, we use Home tab.
- The Shapes command is located in Illustrations group.
- The Insert tab is used to insert SmartArt.
- The Shapes command contains shapes such as circle and rectangle.

### Let's Review

- Tick (✓) the correct option.
  - (a)
  - (b)
  - (c)
  - (d)
- Write T for true and F for false statements.
  - T
  - F
  - T
  - F
  - T
- Answer the following questions.
  - In PowerPoint, a presentation is a group of slides arranged in a systematic order displaying information along with graphics, movies, sound, etc.
  - The steps to insert a picture in a slide:
    - Click the **Insert** tab in the **Image** group. **Insert Picture From** dialog box opens.
    - Click the **This Device** option.
    - Select the picture to be inserted.
    - Click the **Insert** button.

The selected picture will be inserted in the slide.





- A picture can be resized by dragging it from its corners.
- The steps to apply style to an inserted picture:
  - Click the picture.
  - Click the **Format** tab in the **Pictures Tools**.
  - Click the More drop-down arrow to display all the picture styles.
  - Select the picture style required by you and click on it.

The selected picture style will be applied to the picture.

- The steps to insert SmartArt:
  - Click the Insert tab.
  - Click the SmartArt option from the Illustrations group. The Choose SmartArt Graphic dialog box appears.
  - Select the SmartArt of your choice from the left pane.
  - Click the OK button.

The selected SmartArt will be applied on the slide.

## Activity Time

Tool	Use
	This tool is used to insert a picture.
	This tool is used to insert a shape.
	This tool is used to add SmartArt in the slide.
	This numbered list can be used to arrange the text in numbers sequence.

### Brain Teaser

- I M A G E    G R O U P
- I N S E R T    T A B
- S M A R T A R T

### Model Test Paper — I

#### A. Tick (✓) the correct option.

- (c)      2. (a)      3. (b)      4. (b)
- (a)      6. (d)      7. (c)      8. (b)
- (a)      10. (c)

#### B. Fill in the blanks.

- The joystick converts the movements of your hands into electrical signals and inputs them into the computer.
- A microphone contains a device called an **amplifier** inside it.
- The main circuit board of a computer which lies inside the CPU box is known as the motherboard.
- The Dot Matrix printers form characters and image using patterns of dots.
- The **Windows Explorer** window is used to manage your libraries, folders, and files.
- Back** button helps to take you to previously viewed folder.
- The **Content** option displays files and folders with its name, type and size information.
- AutoFit button is located in Cell Size group in the **Layout** tab.
- DVD stands for **Digital Video/Versatile Disc**.
- The **Windows Explorer** window is used to manage your libraries, folders and files.

#### C. Answer the following questions.

- A computer takes information or data from an input device, store it to process, and after completing the processing, it outputs the result.

Input → processing → Output

- A CPU is a storage and processing unit. Its two parts are given below.

**Primary storage:** Also called the main memory, it keeps the information for a limited time which gets removed after switching off the computer.

**Secondary storage:** Also called external memory, it does not lose the data even when the computer is switched off.

- ROM, stands for Read Only Memory, is a built-in memory which can only be read its and contents is not lost after switching off the computer.

- Output devices are computer hardware that receive data from the computer and then translate that data into usable form for the use of the user. Monitor, and printer are output devices.

- Main components of Window Explorer are: Address bar, Refresh button, Search box, Navigation pane, More options, Get help, Menu Control bar, Details pane, Back button and Forward button.

- The steps to create a folder on desktop:

- Click the mouse pointer at the blank area of desktop. A drop-down menu appears.
- Click the **New** option. A drop-down menu appears.
- Click the **Folder** option.

A New Folder is created. You can change its name.

- MS Word 2016 is the most popular and most commonly used word processing software.

The main features of MS Word 2016:

- It types, edits, saves and prints text documents like letters, stories, reports, etc.
- It adds pictures in the document to make it more attractive.
- It changes the look of the text using different colours, styles and effects.

- It gives a proper shape to documents by adjusting page margins, shading, borders, etc.
- It checks and corrects spelling mistakes and grammar.
- It allows the user create tables and insert them into the text document.

8. Write the steps to add table in MS Word document.

The steps to add table in MS Word document:

- Point the cursor where the table is to be inserted.
- Click the **Insert tab**.
- Click the **Table** button in **Tables group**.
- Drag the mouse over the tables cells to select the number of rows and columns in the table.
- Left click the mouse on the right-bottom corner of the cell.

The table will appear in the located place of the document.

9. The Shape command in Illustrations group contains shapes such as rectangle, triangle, square, etc.

10. We can add SmartArt in a slide using these steps:

- Click the **Insert tab**.
- Click the **SmartArt** option from the **Illustrations** group. The **Choose SmartArt Graphic** dialog box appears.
- Select the type of SmartArt from the left pane.
- Click the OK button.

## Chapter 5 : More on MS Excel 2016

### Rapid Fire

1. A cell is small rectangular area formed by the intersection of row and column.
2. A file in MS Excel is known as a **workbook**.
3. **Work area** is a matrix of rows and columns that forms cells.
4. Press the **copy button** or **ctrl + C** to copy contents of cell.
5. **Autofill** feature helps you to automate data-entry tasks.

### Let's Review

A. Tick (✓) the correct option.

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

B. Fill in the blanks.

1. **MS Excel** is used to perform mathematical calculations quickly.
2. The cell whose boundary is highlighted is called an **active cell**.
3. **File button** is displayed at the top-left corner of MS Excel window.
4. **Formula box** is used to enter and edit formulae and perform calculations on your worksheet data.
5. **Cut** and **Paste** commands are used to move the contents of a cell to other cells.

C. Answer the following questions.

1. A spreadsheet software is a special type of software that results and analyses the entered data arranged in rows and columns.
2. Spreadsheet software has many advantages. Some of them are:
  - It allows users to perform calculations on data quickly and accurately.
  - It allows them sort data to view only selected data items from a big collection of data.
  - It allows them format data to give a desired look.
  - It lets them convert a set of data into a graph or a chart.
  - It allows them edit and correct wrong data entries easily.
  - It can store large spreadsheets effortlessly on the computer.
3. MS Excel is an electronic spreadsheet software. It is used to perform mathematical calculations quickly. It provides built-in features and tools that make it easier to work with large amount of data.
4. A cell is the intersection point of the row and columns which has no highlighted boundary; whereas an active cell is where the cursor is pointed and it has a highlighted boundary.

5. Steps to copy and paste the contents of a cell:
  - Select the cell.
  - Click the **Home** tab.
  - Click the **Copy** button in the **Clipboard** group.
  - Select the cell where the contents to be pasted.
  - Click the **Paste** button in the **Clipboard** group.






The cell contents will be pasted in the desired cell.

6. Steps to insert cells below the selected cells are:
  - Select the range of cells where cell to be inserted.
  - Click the **Home** tab.
  - Click the **Insert** button in the **Cells** group. A list of options appears.
  - Click the **Insert Cells**. The **Insert** dialog box appears.
  - Select the required option in the **Insert** dialog box.
  - Click the **OK** button.

The required number of cells will be inserted at the desired place.

7. **AutoFill** is an important feature of MS Excel that helps users automate data-entry tasks. One can use **AutoFill** to add duplicate entries or a data series to his/her worksheet cells.

### Activity Time

Icon	Button Name	Group Name	Tab Name
	Insert	Cells	Home tab
	Delete	Cells	Home tab
	Format	Cells	Home tab
	Wrap text	Alignment	Home tab
	Merge & Centre	Alignment	Home tab

### Brain Teaser

1. **Sort A to Z** option in **Sort & Filter** button is selected to sort the data in alphabetical order.
2. The 'Order' category in the sort dialog box is used to arrange data either in alphabetical order or ascending or descending order.

### Rapid Fire

1. In Excel worksheet, a complete row of information is called a **cell**.
2. A column in worksheet containing data of a particular kind is called a **reference cell**.
3. The most common type of sorting is **alphabetical ordering**.
4. The **Sort & Filter** button is in **Editing** group.

### Let's Review

- A. Fill in the blanks.
  1. The **Sort** dialog box is used to sort on multiple columns can make it easier to find the data you need.
  2. **Filters** can be applied in different ways to improve the performance of your worksheet.
  3. The **Custom AutoFilter** dialog box is used to locate data based on specific conditions.
  4. To redisplay all table data, click on the **Clear** button from the **Data** tab.
  5. The **Conditional Formatting** button is in the **Styles** group.
- B. Write T for true and F for false statements.
  1. T                      2. F                      3. T
  4. T                      5. F                      6. T
- C. Answer the following questions.
  1. MS Excel is popular spreadsheet across the world because it is an electronic spreadsheet software which is used to perform mathematical calculations quickly. It also provides built-in features and tools that make it easier to work with a large amount of data.
  2. In MS Excel, sorting is a way of arranging data into meaningful order so that it can be analysed more effectively.
  3. In MS Excel, a field is an element in which a piece of information is stored, such as the received field. Generally, a column in a table contains the values of a single field.

4. In MS Excel, data filtering is a way of examining or displaying certain set of data according to desired criteria.

5. Custom AutoFilter is a feature of MS Excel which is used to find, show, or hide values, based on specific conditions.

6. Conditional Formatting is a type of formatting which allows users to change the appearance of a cell, depending on certain conditions.

7. Steps to sort in alphabetical order:

- Select a cell in the column from the worksheet you want to sort.
- Click the **Home** tab.
- Click the **Sort & Filter** button in the **Editing** group. A list appears.
- Click the **Sort by A to Z** option.

The selected column will be arranged in alphabetical order.

8. Steps to sort multiple columns are:





- Select the range of cells.
- Click the **Home** tab.
- Click the **Sort & Filter** button in the **Editing** group. A list appears.
- Click the **Custom Sort** option. The Sort dialog box appears.
- Click the drop-down arrow in the **Column Sort by** field and select one of the options.
- Click the drop-down arrow in the **Sort On** category and select one of the options.
- Click the drop-down arrow in the **Order** category and select one of the options.
- Click the **OK** button.

The selected data will be sort out according to commands.

### Brain Teaser

1. C L E A R
2. S O R T I N G
3. C L E A R R U L E S
4. C U S T O M  
A U T O F I L T E R

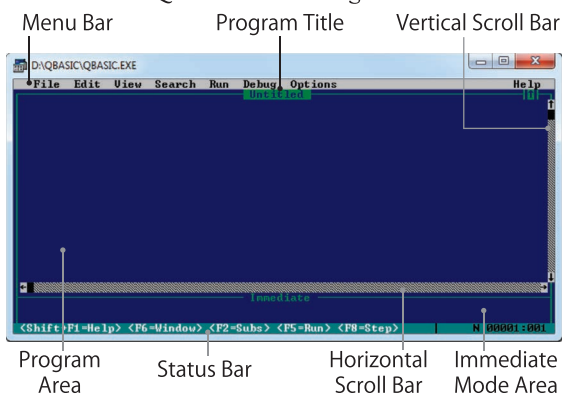
### Activity Time

Icon	Button Name	Group Name	Tab Name	Use
	Conditional Formatting	Styles	Home	It is used to change the appearance of a cell based on certain conditions.
	Highlighted Cell Rule "Greater Than"	Styles	Home	It is used when the conditions are greater than a certain value.
	Highlighted Cell Rule "Less Than"	Styles	Home	It is used when the conditions are less than a certain value.
	Highlighted Cell Rule "Between"	Styles	Home	It is used when the conditions are between the certain values.

### Chapter 7 : QBasic — An Introduction

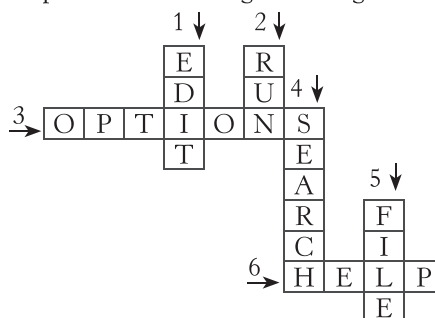
### Activity Time

The labelled QBasic window is given below.



### Activity Time

The complete crossword is given alongside.



### Rapid Fire

1. A program written in the machine languages is called a **machine code**.
2. **Microsoft Corporation** developed QBasic.
3. **Compilers** are also a software program like the assembler.
4. **QBasic** is considered to be a second-generation language.

### Let's Review

A. Tick (✓) the correct option.

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

B. Write T for true and F for false statements.

1. T
2. F
3. T
4. F
5. T
6. F

C. Answer the following questions.

1. A programming language is a computer that users use to develop applications, scripts or other instruction for a computer to execute.
2. A low-level language is a machine oriented programming language that requires extensive knowledge of computer hardware. It provides a little or no abstraction of programming concepts.
3. Language translators are software that allow computer programmers to translate programs in assemble language into the machine code.
4. QBasic is a high-level programming language developed by the Microsoft Corporation.
5. The basic elements of QBasic program are: Character set, Variables, Constants, and Operator.
6. The total number of consonants in a string are said to be string consonants.
7. A variable in QBasic is a small quantity of computer memory (or program) that has been given a name. Its value can be changed any number of times as required during the execution of a program.
8. Some rules for naming variables are:
  - Variable names can have maximum 40 characters.
  - Variable names can have alphabet, numbers and decimal point.

- A variable name must begin with a letter.
- A variable name cannot begin with fn or FN letter. For example : fnames\$, fnum, etc.
- Variable names cannot be reserved words.
- Variable names may be concluded with typed declaration characters like \$, %, &, !, and #.

9. Arithmetic operators are symbols that are used to perform mathematical operations like addition, subtraction, division, multiplication and exponential. The arithmetic operators used in QBasic for: addition → +, subtraction → −, multiplication → \*, division → / and for exponential → ^.

10. Logical operators are symbols that combine two or more relational expressions to evaluate a single value as true (non zero) or false (zero). The result of evaluation is used to make decisions about the program flow. The commonly used logical operators in QBasic are AND, OR and NOT.

Arithmetic operator	Explanation
+	Add two or more numbers.
−	Subtract tow or more numbers.
*	Multiply two or more numbers.
/	Divide numbers.
^	Calculate exponential value

### Activity Time

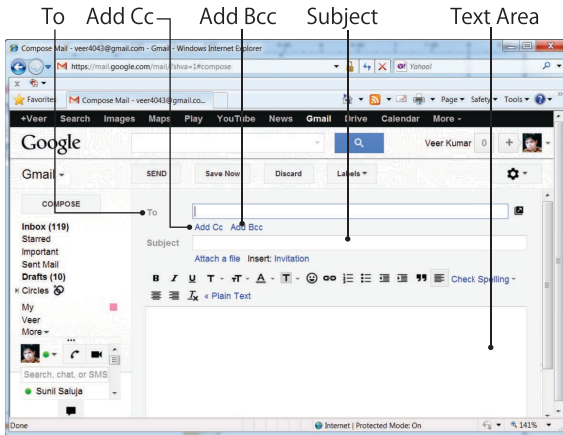
The complete table is given alongside.

### Brain Teaser

1. D E B U G M E N U
2. C O N C A T E N A T I O N
3. O P E R A T O R S
4. C H A R A C T E R S E T
5. M A C H I N E C O D E
6. S E A R C H

### Activity Time

The complete labelled mail window is given below.



### Rapid Fire

1. Cc stands for **Carbon copy**.
2. The details of the mails can be checked in **Inbox link**.
3. **Compose** opens compose mail window where you can write a mail.
4. **Sent mail** link stores the mails sent by you to other e-mail accounts..

### Let's Review

- A. Write T for true and F for false statements.
1. F
  2. F
  3. F
  4. T
  5. T
- B. Answer the following questions.
1. E-mail is one of the most used features of the Internet, which helps communications to be fast, reliable and accurate.
  2. Some advantages of e-mail are given below:
    - E-mails are easy to use.
    - They are delivered at once around the world
    - They do not use paper.
    - They can include pictures.
    - Products can be advertised with e-mails.
  3. Steps to compose and send an e-mail:
    - Open Internet Explorer and type WWW.gmail.com in the address bar of Internet Explorer.

- Type your login name and password in appropriate boxes.
- Click the **Sigh in**. The account window appears.
- Click the **Compose** button.
- Write e-mail address in the **To** box.
- Type the subject of the sending e-mail in the **Subject** box.
- Click in **Text area** and write the message for the receiver.
- Click the **Send** button. The e-mail will immediately send to the recipient.

#### 4. Steps to attach a file to an e-mail:

- Open the **Compose** button.
- Write e-mail address in the **To** box.
- Type the subject of the sending e-mail in the **Subject** box.
- Click the **Attach a file** link. The select file(s) to upload by mail.google.com dialog box opens.
- Select the file to be attached.
- Click the **open** button. The file gets attached to the e-mail.
- Click the **Send** button.

The e-mail will immediately send to the recipient with the attached file.

#### 5. Steps to delete an e-mail:

- Click the **Inbox**.
- Click the **check box** to select the mail to be deleted.
- Click the **Delete** button.

The e-mail will be immediately deleted.

### Activity Time

The complete grid is given below.

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

## Chapter 9 : Scratch (A Programming Language)

### Rapid Fire






1. A set of instructions given to a computer to perform a particular task is called a program.
2. To start Scratch, first click the start button and then Scratch program.
3. In Scratch, a costume is one out of possibly many frames or alternate appearances of a Sprite.
4. A Cap block is used to stop a script.

### Let's Review

- A. Tick (✓) the correct option.
1. (b)                      2. (d)                      3. (d)
  4. (b)                      5. (b)
- B. Fill in the blanks with the correct words.
1. **Programming** is a technique for writing the programs. The set of instructions given to a computer to process the data or perform a certain task is called a **program**.
  2. A **stack** block has a notch at the top and a bump at the bottom.
  3. A hat block is a code block with a **curved** top and a **bump** at the bottom.
  4. Pen blocks are **green** colour-coded blocks.
  5. Events blocks are used to control **events** and triggering of scripts.
  6. The **Operators** blocks are used to perform Maths functions and string handling.
- C. State whether True or False.
1. True                      2. True                      3. False
  4. True                      5. False
- D. Answer the following questions.
1. Hat blocks used for starting a script.
  2. The Reporter blocks are either rounded or angled sides.
  3. In Scratch, code blocks are grouped into ten categories. They are: Motion blocks, Looks blocks, Sound blocks, Pen blocks, Data blocks, Events blocks, Control blocks, Sensing blocks, Operators blocks and More blocks.
  4. Motion blocks are used for the movement and rotation a Sprite.
  5. Data blocks are used for storing information used by applications when they execute.

6. The "set pen color to" blocks is used for setting and changing the pen colour.
7. Scratch has three relation operators: greater than, less than, equal to.
8. Scratch has three logic operators: And, Or, No.

### Activity Time

Blocks	Used for
	This block is used to add two values.
	This block is used to checks if the first value is less than the second value.
	This block takes two expressions as parameters.
	This block takes only one expression as input.
	This block divides the second value from the first value and gives the result.

## Chapter 10 : Artificial Intelligence (Machine Learning)

### Rapid Fire

1. Supervised machine learning is a type of machine learning in which machines are trained using labelled data.
2. In supervised learning, machines are trained by labelled data; whereas in unsupervised learning, the model learns from unclassified and unlabelled data.
3. Deep learning is a type of machine learning technique where algorithms are used to train deep neural networks to achieve better accuracy.
4. Machine learning plays a very important role in autonomous vehicles. It enables vehicles to learn from data and predictions about their surrounding world. For example, self-driving car models are trained to detect people and objects that come their way while moving. The development of autonomous vehicles will definitely revolutionaries the transport system.

### Let's Review

- A. Tick (✓) the correct option.
1. (c)                      2. (a)                      3. (b)
  4. (c)                      5. (d)                      6. (b)

B. Fill in the blanks.

1. Machines learn from the data they are fed and **automate** learning.
2. In supervised learning, the **labelled** data has the answers with it.
3. Cortana and Siri are **virtual** personal assistants which come in action with voice.
4. In **supervised** machine learning algorithm, the model learns from labelled data.
5. In medical science, machine learning is used for **diseases** diagnoses.

C. Write T for true and F for false statements.

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

D. Answer the following questions.

1. Machine learning is an application of artificial intelligence that enables machines to improve at tasks with experience.
2. The full form of GNMT is Google Neural Machine Translation.
3. Supervised learning algorithm is a type of machine learning in which machines use their past experiences labelled data. One common example of supervised learning is identification of things from their pictures, say fruits.
4. Supervised learning applies past experiences labelled for model to be trained, whereas unsupervised learning uses neither classified nor labelled data for model to be trained.
5. The two types of supervised learning are: classification and regression: Classification uses an algorithm to accurately assign test data into specific categories.
6. Usefulness of machine learning in the given fields:

(a) **Bioinformatics:** Machine learning has played a very important role in bioinformatics. Bioinformatics is the analysis of biological data such as fingerprints, iris texture, earlobe, and hair colour of humans. The data is fed into the model to train it. Machines use this data to identify people. Aadhar cards are based on bioinformatics.

(b) **Social media:** In social media platforms like Facebook, artificial intelligence is used for face verification wherein machine learning and deep learning concepts are used to detect facial features and tag your friends.

(c) **Speech Recognition:** Today, virtual assistants have become a very common technology. Almost every household has a virtual assistant that controls the appliances at home. The most well-known virtual assistants include Siri, Cortana and Google Assistant.

(d) **Automatic Language Translation:** Sometimes we have visit a new place where we are not aware of the language. Today, it is not a problem at all because machine learning helps us by converting the text into our known languages. Google's GNMT provides this feature which translates the text into our familiar language. It is called automatic translation.

7. Reinforcement learning is an area of machine learning in which models make a sequence of decisions. It is about taking suitable action to maximize reward in a particular situation. It is employed machines to find the best possible behaviour or path a model should take in a specific situation. In reinforcement learning, the given task is decided by a reinforcement agent.
8. In the field of banking, machine learning is playing a very important role. For payment fraud, the model continuously supervises customer behaviour and once a threshold level of suspicion is detected, the bank is notified and then has the information to request additional authentication from the customer.
9. In the field of medical science, machine learning is used for diseases diagnoses. With this, medical technology is growing very fast and is able to build 3D models that can predict the exact position of lesions in the brain. It helps in finding brain tumours and other brain-related diseases easily.

## Activity Time

The students will do it themselves.

### Model Test Paper — II

A. Tick (✓) the correct option.

- |         |         |         |
|---------|---------|---------|
| 1. (b)  | 2. (a)  | 3. (b)  |
| 4. (c)  | 5. (b)  | 6. (b)  |
| 7. (c)  | 8. (b)  | 9. (c)  |
| 10. (b) | 11. (a) | 12. (c) |
| 13. (b) | 14. (d) | 15. (b) |

B. Write T for true and F for false statements.

- |      |       |      |      |
|------|-------|------|------|
| 1. T | 2. T  | 3. F | 4. F |
| 5. T | 6. F  | 7. F | 8. T |
| 9. T | 10. F |      |      |

C. Answer the following questions.

1. Some advantages of spreadsheet software are:

- It is free and requires minimal training.
- It allows users perform calculations on data quickly and accurately.
- It is easy to sort data to view only selected data items from a huge collection of data.
- It allows users to format data to give a desired look.
- It lets users to convert a set of data into a graph or a chart.
- It allows users to edit and correct wrong data entries easily.
- It can store large spreadsheets effortlessly on the computer.

2. To copy cells contents and paste them to other cells, we follow these steps:

- Select the cell contents and click the Home tab.
- Click the Copy button in the Clipboard group.
- Click where the cell contents to be pasted.
- Click the Paste button in the Clipboard group.

The selected cell contents will be pasted at the desired place.

3. The main reason for necessity to have a programming language for computers is to communicate with the computers. Also the programming languages are used to develop an application for performing a specific task, automating things, etc.

4. Custom AutoFilter is a feature in MS excel that we use to find, show, or hide values in one or more columns of data.

5. To sort multiple columns, we follow these steps:

- Select the range of cells.
- Click the **Home** tab.
- Click the **Sort & Filter** button in the **Editing** group. A list appears.
- Click the **Custom Sort** option. The **Sort** dialog box appears.
- Click the drop-down arrow in the **Column Sort by** field and select one of the options.
- Click the drop-down arrow in the **Sort On** category and select one of the options.
- Click the drop-down arrow in the **Order** category and select one of the options.
- Click the **OK** button.

The selected data will be sort out according to commands.

6. Machine language is a collection of binary digits or bits (0s and 1s) that the computer reads and interprets.

7. QBasic is a high-level programming language developed by the Microsoft Corporation. We can easily convert the problem solving steps shown in a flowchart or an algorithm into the QBasic programming language to get the problem solved by the computer.

8. Arithmetic operators are symbols that are used to perform mathematical operations like addition, subtraction, division, multiplication and exponential. The arithmetic operators used in QBasic for: addition → +, subtraction → -, multiplication → \*, division → / and for exponential → ^.

9. To add an attachment to an e-mail, we follow these steps:

- Open the **Compose** button.
- Write e-mail address in the **To** box.
- Type the subject of the sending e-mail in the **Subject** box.
- Click the **Attach a file** link. The select file(s) to upload by mail google.com dialog box opens.

- Select the file to be attached.
- Click the open button. The file gets attached to the e-mail.
- Click the **Send** button.

The e-mail will immediately send to the recipient with the attached file.

10. As the name suggests Control blocks let the user control the blocks within the scrips, inserting conditions statements, loops, repeats and pauses. Five Control blocks are: repeat block, forever block, if.. then block, it ... then ... else block, stop all.
11. Five applications of machine learning are: speech recognition, spam detection, social media, bioinformatics and banking.

### Cyber Olympiad

Choose the correct option.

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (d)  | 2. (d)  | 3. (c)  | 4. (d)  |
| 5. (d)  | 6. (a)  | 7. (a)  | 8. (b)  |
| 9. (a)  | 10. (d) | 11. (a) | 12. (b) |
| 13. (c) | 14. (c) | 15. (b) | 16. (a) |
| 17. (b) | 18. (d) | 19. (d) | 20. (a) |
| 21. (b) | 22. (c) | 23. (d) | 24. (b) |
| 25. (b) | 26. (b) | 27. (b) | 28. (c) |
| 29. (d) | 30. (d) |         |         |

## Class 7

### Chapter 1 : More on Windows 10

#### Activity Time

- |       |      |      |
|-------|------|------|
| 1. S  | 2. S | 3. E |
| 4. S  | 5. E | 6. E |
| 7. E  | 8. S | 9. S |
| 10. S |      |      |

#### Rapid Fire

- Control Panel contains several links that is used to change **hardware** or **software** settings.
- Administrative Tools is example of **software** settings.
- Programs** use the date and time to establish when files and folders are created and modified.
- You can add one or two additional clocks using the **Additional Clocks** tab.

### Let's Review

- Tick (✓) the correct option.
 

1. (a)	2. (d)	3. (a)
4. (a)	5. (a)	
- Match the following.
 

1. (ii)	2. (iv)	3. (v)
4. (iii)	5. (i)	
- Answer the following questions.
  - Control Panel is a feature of the Microsoft Windows graphical user interface that allows users modify computer's settings and controls.
  - Follow these steps to change date and time of a computer:
    - Open the Control Panel and click the Clock and Region link. Date and Time dialog box appears.
    - Click the **Change time zone** option. A dialog box appears.
    - Click the **Change date and time** button. The **Date and Time Settings** dialog box appears.
    - Make the required changes in date and time of your system and click the **OK** button.
  - Follow these steps to set the double-click speed of the mouse:
    - Open the Control Panel and click the Hardware and Sound link. A Hardware and Sound dialog box appears.
    - Click the Mouse option in Devices and Printers section. A Music Properties dialog box appears.
    - Click the Buttons tab.
    - Drag the speed slider in the suitable direction to set the double-click speed as slow or fast.
    - First click the Apply button and then OK button.
  - An On-screen Keyboard is a feature provided by Windows 10. It allows users to type text using a joystick or a pointing device.
  - Disk cleanup is a utility of a Windows operating system. It helps to clean up hard disk.