

Based on  
**Windows 10**

ADHERES TO  
National Education Policy (NEP)  
**FOUNDATIONAL STAGE**

 **Fiesta**  
Learning  
*Big Ideas Simply Explained*

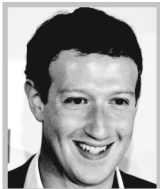
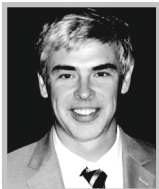
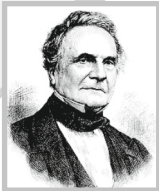
# CYBER TOOLS

**With Coding and Artificial Intelligence**

**Budding Series with  
Play-way Methodology**



Designed by  
Computer  
Literacy  
Experts



## Teacher's Help Book (1-5)

Book-1	02
Book-2	05
Book-3	11
Book-4	19
Book-5	30

# Computer-1



## Computer : A Useful Machine

- A. 1. (a); 2. (b); 3. (c); 4. (c)
- B. 1. (3); 2. (7); 3. (7); 4. (3)
- C. 1. machine; 2. time; 3. fast; 4. tired
- D. Toaster – Bread Slice; Washing Machine – Dirty Clothes;  
Juicer – Fruits;  
Music System – CD
- E. 1. Juicer; 2. Sewing Machine; 3. Car; 4. Computer



## Parts of A Computer

- A. 1. (b); 2. (a); 3. (c)
- B. 1. (3); 2. (7); 3. (7); 4. (7)
- C. 1. monitor; 2. CPU; 3. keyboard; 4. printer
- D. 1. (c); 2. (e); 3. (d); 4. (b); 5. (a)
- E. 1. Keyboard; 2. Mouse; 3. Speakers



## Computer and Its Applications

- A. 1. (3); 2. (3); 3. (7); 4. (3)
- B. 1. Computer; 2. games; 3. diagnose; 4. bills
- C. 1. It helps the doctor to diagnose the diseases.  
2. Computers are used in market to prepare computerized bill.  
3. It is used to make report cards in school.  
4. Bank, Hospital, Market.



4

## The Keyboard

- A. 1. (b); 2. (a); 3. (a); 4. (b)
- B. 1. Numeric; 2. Enter; 3. 2; 4. 26
- C. 1. (c); 2. (a); 3. (e); 4. (b); 5. (d)
- D. 1. Alphabet keys are used for typing words and sentences.  
2. It is used to erase the letters one by one, from left side of the cursor.  
3. Caps Lock key is used to type the words in capital letters.



5

## The Mouse

- A. 1. (a); 2. (a); 3. (b); 4. (d)
- B. 1. (7); 2. (3); 3. (7); 4. (3)
- C. 1. quickly; 2. clicking; 3. pointing; 4. Double clicking
- D. 1. Yes  
2. A mouse is a pointing device. It looks like a real mouse, It has a wire which looks like the tail of real mouse.  
3. Gentle press and release the mouse left button once it is called single click.  
4. When we press the right button of a mouse once, it is called right click.



6

## Operating A Computer

- A. 1. (b); 2. (a); 3. (a); 4. (c)
- B. 1. (7); 2. (7); 3. (3); 4. (7)
- C. 1. UPS; 2. power; 3. Shut Down; 4. program; 5. Desktop
- D. 1. (b); 2. (e); 3. (d); 4. (c); 5. (a)
- E. 1. Windows is the most popular program that makes the computer work.  
2. Start button

3. Desktop is the first display screen when we switch on a computer.
4. The desktop holds many small pictures, known as Icons.



## MS Paint

- A. 1. (b); 2. (a); 3. (b); 4. (c)
- B. 1. (3); 2. (7); 3. (3); 4. (7)
- C. PAINT, TOOLS, OVAL, COLOR
- D. 1. Size button  
2. Fill with Color tool



## Introduction to Coding

- A. 1. language; 2. programs; 3. keyboard
- B. 1. (b); 2. (c); 3. (a)
- C. 1. Coding is the process of writing the step-by-step instructions that tells computer what to do.  
2. A computer program is a collection of instructions that a computer executes to complete a specific task.  
3. Many gadgets and devices used in day-to-day lives are controlled by coding. for example, video games, washing machine etc.



## Introduction to Artificial Intelligence

- A. 1. (c); 2. (a); 3. (d)
- B. 1. natural; 2. Artificial; 3. Toadi; 4. mind
- C. 1. (7); 2. (3); 3. (3); 4. (3)
- D. 1. Artificial Intelligence makes computer think like a human mind.  
2. Misa is the name of the robot which will help you in your home.

## Computer-2



### Computer : A Smart Machine

- A.** 1. (a); 2. (b); 3. (b); 4. (c)
- B.** 1. (7); 2. (3); 3. (7); 4. (3)
- C.** 1. orders; 2. records; 3. cars; 4. tickets
- D.** 1. (c); 2. (e); 3. (a); 4. (b); 5. (d)
- E.** 1. Desktop computer, Laptop, Tablet.  
2. (a) A computer does not make any mistake.  
(b) A computer stores a large amount of information and never forgets it.  
3. Schools and hospitals.  
4. Tablet computer.  
5. Smart phones



### Parts of A Computer

- A.** 1. (b); 2. (a); 3. (b); 4. (a)
- B.** 1. (3); 2. (3); 3. (7); 4. (3); 5. (7)
- C.** 1. CPU; 2. output; 3. input; 4. joystick; 5. UPS
- D.** 1. (c); 2. (a); 3. (d); 4. (b)
- E.** 1. Printer; 2. Mouse; 3. Floppy; 5. Monitor; 6. Keyboard
- F.** 1. All the calculations and processing are performed by the CPU.  
2. Alphabet keys, Numeric keys, Function keys, Special keys.  
3. A printer is an output device. It is used for printing pictures, graphics and text output on paper. There are different types of printers available in the market.  
1. Inkjet printer      2. Laser printer

4. A monitor looks like a television screen.
5. Headphone is used to listen to the sounds without disturbing others.



## Storage Devices

- A.** 1. (a); 2. (b); 3. (c)
- B.** 1. (3); 2. (3); 3. (7); 4. (7); 5. (3)
- C.** 1. CPU; 2. Floppy disk; 3. Compact disk; 4. Flash drive
- D.** 1. Storage means to keep or save something.  
2. Pen drive is a small and very popular high capacity storage device.  
3. We need storage devices which stored data permanently. So that it is not lost.  
4. Computer stored data in Hard Disk.  
5. Two types of floppy disk are –  
(a) 3.5", known as Micro floppy.  
(b) 5.25", known as Mini floppy.



## History of Computer

- A.** 1. (a); 2. (b); 3. (c); 4. (c)
- B.** 1. (3); 2. (7); 3. (3); 4. (3); 5. (7)
- C.** 1. first computer; 2. Blaise Pascal; 3. difference engine; 4 Charles Babbage; 5. Napier's Bones.
- D.** 1. The abacus was the first known machine developed to help perform mathematical calculations. The abacus is a wooden or metal frame that has a horizontal central rows or wires above and below.  
2. In 1842, Blaise Pascal, the 18 years old son of a French tax collector, invented a numerical wheel calculator to help his father with his duties. This was the first calculator in history.

3. Charles Babbage is known as “the father of Modern Computers” because he was the first person to design a general purpose computing machine.
4. In 1944, Howard H. Aiken developed one of the first computers the Automatic Sequence Controlled Calculator (ASCC). Later it was renamed the Harvard Mark-I and given to Harvard University.



## Application Of A Computer

- A.** 1. (c); 2. (a); 3. (c)
- B.** 1. (3); 2. (7); 3. (3); 4. (7)
- C.** 1. Computers; 2. games, spellings; 3. records, reservations; 4. hospitals
- D.** 1. (a) At school, (b) At home, (c) In bank, (d) In hospital, (e) In market (f) In space and research
2. Computer is widely used in schools :
1. It is used for teaching purpose.
  2. It is used to make time tables.
3. Computer is used in hospitals to diagnose and cure diseases and preparing medical reports.
4. At Home :
1. Playing games, 2. Learning spellings
- At Transport :
1. Computer informs passengers about the arrival and departure time of aeroplanes and trains., 2. It maintains records and allot reservations to various passengers.
5. Do yourself.



## More About Keyboard

- A.** 1. (c); 2. (a); 3. (b)
- B.** 1. (3); 2. (3); 3. (7); 4. (3); 5. (3)

- C. 1. alphabet; 2. spacebar; 3. Backspace; 4. arrow; 5. Enter
- D. 1. A keyboard is an input device used to enter information into the computer.
  - 2. Arrow keys help us to move the cursor up, down, left and right.
  - 3. It is used to see the result of the work done.
  - 4. Some special keys are – \$, #, @, &, etc.
  - 5. It is used to print the letter in upper case when Caps Lock key is off.



## Using MS Word 2016

- A. 1. (a); 2. (b); 3. (c); 4. (a)
- B. 1. (7); 2. (7); 3. (3); 4. (3); 5. (7)
- C. 1. word processing; 2. document 1; 3. Title; 4. Status; 5. Horizontal
- D. 1. (c); 2. (a); 3. (d); 4. (b)
- E. 1. Microsoft word is a word processing software. As we use a notebook to write words and sentences, similarly in a computer we use MS Word to type the text in a document.
  - 2. MS Word is useful to us because we can–
    - 1. Type, format, edit text and picture in a document.
    - 2. Save the document for future use.
  - 3. 1. Horizontal ruler, 2. Vertical ruler
  - 4. It contains the document name followed by the program name.
  - 5. Title Bar, Quick Access Bar, Ribbon, File Tab, Ruler, Working Area, Status Bar, Scroll Bar, Zoom Slider.



## More On MS Paint

- A. 1. (a); 2. (b); 3. (a); 4. (d)

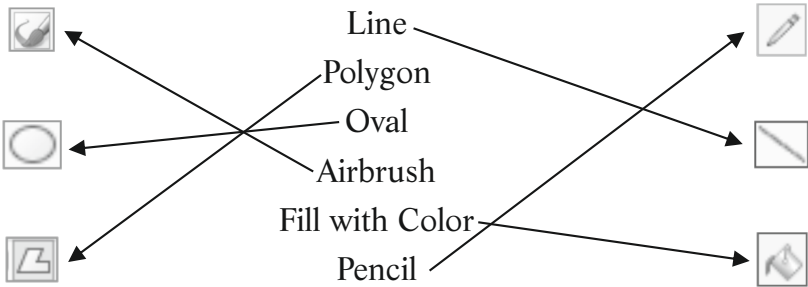


- B. 1. (3); 2. (7); 3. (3); 4. (7); 5. (3)
- C. 1. group; 2. tab; 3. Drawing Area; 4. pencil; 5. Fill with Color
- D. 1. Title Bar
  - 2. Ribbon
  - 3. Drawing Area
  - 4. A curve can be modified only two times.



## Draw And Colour The Shapes

- A. 1. (d); 2. (a); 3. (c); 4. (b); 5. (a)
- B. 1. (7); 2. (3); 3. (7); 4. (3); 5. (3)
- C. 1. Brushes; 2. Size; 3. Shapes; 4. file
- D.



- E. 1. Size option
  - 2. Colors group
  - 3. Polygon tool
  - 4. Airbrush tool
  - 5. Save button



## More on Coding

- A. 1. scratch; 2. instructions; 3. problem-solving;
  - 4. programming; 5. code
- B. 1. (7); 2. (3); 3. (3); 4. (7); 5. (3)
- C. 1. Code is the Language understood by the computer. We

- use it to give instructions to the computer.
2. Most of the gadgets, devices, apps and games around us are controlled by the code.
  3. Problem-solving skill is an ability to solve a new and unusual problem situation in a step-by-step manner.
  4. Scratch is used to do basic learning Scratch.
  5. Some interesting features of Scratch are different characters, backdrops, animations, sounds and videos.



## More on Artificial Intelligence

- A.** 1. (a); 2. (a)
- B.** 1. machines; 2. filters; 3. robots; 4. accurately;  
5. precision
- C.** 1. AI refers to the intelligence of machines.  
2. Robots are used in factories to load materials.

## Computer-3



### Introduction To A Computer

- A.** 1. (b); 2. (a); 3. (c); 4. (c); 5. (c)
- B.** 1. (3); 2. (3); 3. (7); 4. (7); 5. (3)
- C.** 1. easy; 2. intelligence; 3. IPO cycle; 4. output; 5. costly
- D.** 1. A computer is a useful machine. It is used in almost every sphere of life. We can play games, write letters, draw pictures, listen to music, store information, solve sums etc., on a computer.
2. A computer is a useful learning tool, but it has some disadvantages, which are as follows :
- (a) Zero IQ, (b) No Health Issue, (c) Work on electricity, (d) Costly
3. The computer takes the data we enter as input process it and gives information as output. The working of a computer is based on the IPO cycle.
4. The different types of computer on the basis of their size are—
1. Micro computers, 2. Mini computers, 3. Mainframe computers, 4. Super computers.
5. The different types of computer on the basis of their basic operating principle are —
1. Digital computers, 2. Analog computers, 3. Hybrid computers.



### Hardware And Software

- A.** 1. (c); 2. (a); 3. (b); 4. (b); 5. (b)
- B.** 1. (3); 2. (7); 3. (3); 4. (3); 5. (7)

- C.** 1. Hardware; 2. delete; 3. printer; 4. circular; 5. software
- D.** 1. The parts of a computer, which we can see or touch are called hardware.
2. A group of instructions given to the computer to do particular work is called software.
3. Spreadsheet.
4. MS Word
5. System Software is a set of programs that controls the overall working of a computer while the software that is designed to do a specific type of work is called Application Software.



## Knowing Windows 10

- A.** 1. (a); 2. (b); 3. (b); 4. (b)
- B.** 1. (7); 2. (3); 3. (3); 4. (7); 5. (7)
- C.** 1. Windows store; 2. Taskbar; 3. Notification Area;
4. Task View; 5. Cortana
- D.** 1. Windows is an operating system that controls and manages the functions of a computer.
2. When we switch on a computer, Windows starts automatically. The first screen that appears with labelled pictures on it, is called Desktop.
3. The taskbar is a long horizontal bar located at the bottom of the desktop.
4. Features of Windows 10 are—
1. The best features of Windows 7 and Windows 8 are included in Windows 10.
2. It has an improved search tool – Cortana which helps you to find information on your system or on the web directly.
5. We can use Start button to perform common tasks,

such as starting a program, searching files and folders, shutting down the computer and much more.



**4**

## Editing Text In MS Word 2016





- A.** 1. (b); 2. (b); 3. (a); 4. (c)
- B.** 1. (7); 2. (3); 3. (3); 4. (3); 5. (7)
- C.** 1. clipboard; 2. editing; 3. print, file; 4. red; 5. thesaurus
- D.** 1. (b); 2. (c); 3. (e); 4. (a); 5. (d)
- E.** 1. Features of MS Word are :
1. Produce letters, reports, notices, newsletters, books, bills, etc. quickly and in a presentable manner.
  2. Insert graphics and make use of various drawing tools to draw pictures.
  3. Copy and move the text from one location to another.
2. Making change in a document is called editing.  
We can insert the text in a document in two different ways :
1. Using Insert Mode, 2. Using Overtyping Mode
  3. Thesaurus helps to improve our vocabulary by providing a list of synonyms, for any word.
  4. Moving means to move the text from its original location to a new location while copying means to duplicate the text not only from one location to another within a document, but also from one document to another.



**5**



## Formatting A Document

- A.** 1. (c); 2. (b); 3. (a); 4. (b)
- B.** 1. (3); 2. (7); 3. (3); 4. (3); 5. (7)
- C.** 1. left; 2. home; 3. Insert; 4. bullet; 5. Superscript
- D.** 1. Formatting means changing the appearance of a document to make it attractive.

2. To change the font the steps are as follows :
  1. Select the text. Click on the Home tab.
  2. Click on the drop-down arrow next to the Font box in the Font group. A list of fonts appears.
  3. Choose the desired font from the displayed font list. Observe the change.
3. The various case options available in Word 2016 are :
  1. Sentence case, 2. Lower case, 3. Upper case, 4. Capitalize Each Word, 5. Toggle Case
  1. Sentence case : Capitalises the first letter of the selected sentence.
  2. Lower case : Converts the selected text to lowercase.
4. Alignment refers to the positioning of text on a page. It is always better to set the alignment before typing. We can also select an entire document and then change the alignment of text. Word 2016 provides four types of alignments which are as follows :
  -  **Align Left** : It places the selected text towards the left margin. By default, the text is aligned to the left margin.
  -  **Center** : It sets the text in the center of the left and right margins. This alignment is mostly used for titles /headings.
  -  **Align Right** : This aligns the selected text towards the right margins. It is often used for placing dates or reference in a document.
  -  **Justify** : It places the text evenly between the left and the right margins. It is mainly used for designing books, magazines, and newspapers.
5. Superscript option places the selected text slightly above the baseline. On the other side, the subscript option places the selected text slightly below the baseline and makes it appear smaller than the rest of the text.



## Working With MS Paint

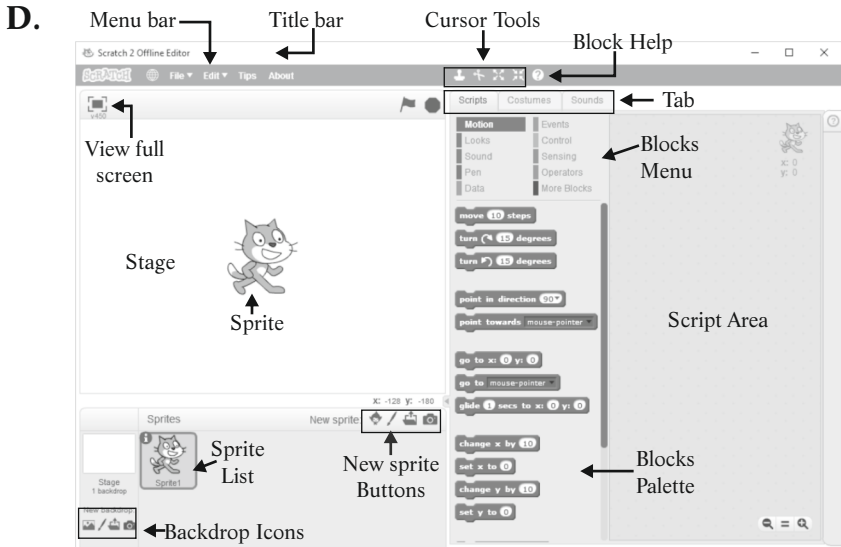
- A.** 1. (c); 2. (b); 3. (a); 4. (a); 5. (c)
- B.** 1. (7); 2. (7); 3. (3); 4. (7); 5. (3)
- C.** 1. Select; 2. Resize and Skew; 3. Top-left; 4. Undo; 5. Ctrl + O
- D.** 1. The various selection tool of MS Paint are –
1. Rectangular Selection Tool, 2. Free-form Selection Tool
  2. Opaque is used to change the background colour of the text box while in MS Paint, by default the background colour of a text box is transparent.
  3. We need to specify the resize in ‘Percentage’ of ‘Pixels’ and skew in degrees for both horizontal and vertical in the respective boxes, according to your requirement.
  4. The two ways to flip a picture are –
    1. Horizontally, 2. VerticallyFlip means to rotate or turn the selected picture horizontally or vertically.
- Click on the Select tool  and select the picture.
  - Select the Rotate option  in the Image group on the Home tab.
  - A list of options will be displayed for changing the rotation or flipping.
  - Select the desired option and the same effect will be applied on that picture.
5. We use zoom tool on the Home tab to increase the size of the picture.



## Introduction To Scratch

- A.** 1. (b); 2. (a); 3. (a); 4. (c)

- B. 1. (7); 2. (7); 3. (3); 4. (7); 5. (3)  
 C. 1. Scratch; 2. program; 3. Sprite; 4. Pen; 5. Stage



- E. 1. Scratch is one of the easiest computer languages. Children can use scratch to create their own games, animated stories and projects with great ease.
2. Sprite is a small graphic character that performs actions in a Scratch Project. Scratch provides a number of in-built sprites. Cat is the default sprite in Scratch.
3. Components of Scratch window are –
- Sprite, (b) Stage, (c) Blocks Palette, (d) Script, (e) Scripts Area
- (a) Stage : It is the main working area where the sprite moves and performs actions as per the given instructions.
- (b) Script : It is a collection of stepwise instructions that are given to a sprite to do a specific task.
4. Pen block is used to draw a line as the sprite moves on the stage.





## Internet

- A.** 1. (b); 2. (a); 3. (b)
- B.** 1. (3); 2. (7); 3. (3); 4. (7)
- C.** 1. small; 2. WAN; 3. modem; 4. Telephone line
- D.** 1. Internet is a network of networks. Internet is an interconnected network between several computers of different types belonging to various networks all over the world.
2. LAN is a small network of computers while WAN is the largest network of computers.
3. Equipments required for internet are –  
1. Computer, 2. Modem, 3. Telephone Line, 4. ISP Connection
4. There are many websites which help us to search the websites containing particular information such websites are known as search engines.



## Artificial Intelligence

- A.** 1. (d); 2. (c); 3. (a); 4. (c)
- B.** 1. (3); 2. (3); 3. (3); 4. (7); 5. (7)
- C.** 1. Science; 2. Deep blue; 3. Alexa; 4. Robots; 5. Aerospace
- D.** 1. (c); 2. (d); 3. (a); 4. (e); 5. (b)
- E.** 1. Artificial Intelligence is a wide ranging branch of computer science that aims to create intelligent machines like computer.
2. Two real life applications of AI are : (i) Ride Sharing Apps (ii) Google's AI Powered Prediction
3. Some main application in robotics where Artificial intelligence is used are:

**Assembly :** It is used in complex manufacturing sectors like aerospace.

**Packaging :** It helps to reduce the cost, make accurate packing and do the packing quicker.

**Customer Service :** They are employed in customer services in retail stores and in hotels.

**Open source robotics :** In open source, users can feed the robots with the data of specific task required.

4. Alexa is a virtual assistant (AI technology) developed by Amazon that is used in its smart speakers. It is capable of voice interaction, music playback, making to do lists, settings alarms, playing audio books and providing information about weather, traffic and sports.

# Computer-4



## 1 History And Generations of Computer

- A. 1. (c); 2. (b); 3. (c); 4. (a); 5. (b)
- B. 1. (3); 2. (3); 3. (7); 4. (3); 5. (7)
- C. 1. Abacus; 2. Analytical Engine; 3. IBM; 4. Vacuum tubes; 5. Microprocessors
- D. 1. Early man use fingers to count.  
2. Abacus was the first calculating device used to add and subtract numbers. It was developed in 3000 BC in China. It was also called a counting frame.  
3. In 1889, an American named Herman Hollerith invented a counting machine called Tabulating Machine to count the population of USA.  
4. The first generation and second generation computers limitation was emitted a lot of heat.
- | 5. <b>Generation</b> | <b>Technology</b>               |
|----------------------|---------------------------------|
| First                | Vacuum tube                     |
| Second               | Transistors                     |
| Third                | Integrated circuits             |
| Fourth               | Large Scale Integrated circuits |
| Fifth                | Artificial Intelligence         |




## 2 Managing Files and Folders

- A. 1. (a); 2. (b); 3. (b); 4. (a)
- B. 1. (7); 2. (3); 3. (7); 4. (3); 5. (3)
- C. 1. Desktop; 2. Cortana; 3. All apps; 4. Shortcut; 5. File Explorer
- D. 1. Features of Windows 10 are – 1. Attractive and easy to use, 2. Searching made easier with Cortana.

2. A file is a collection of related information storage together on some storage device. While a folder in a computer is like a file cabinet where we keep relevant files.
3. Using This PC icon we can access and manage all the folders and files stored in a computer. It is useful for finding, organising, moving and copying files/folders in a computer.
4. Windows 10 has a refined and powerful search tool called 'Cortana'. It allows you to search for information on the system or on the web directly. It can also be used to play music, videos, set alarms and reminders, send e-mail, give voice command etc.
5. When we click on the start button, a menu appears displaying the major options along with the live tiles. This is called the Start Menu. It provides access to the main programs on a computer.



### More on Microsoft Word 2016

- A. 1. (a); 2. (b); 3. (b); 4. (a); 5. (c)
- B. 1. (7); 2. (3); 3. (7); 4. (7); 5. (3)
- C. 1. 1; 2. double click; 3. layout; 4. toggle; 5. 0.5
- D. 1. The **Format Painter** tool is used to copy and apply text formatting and some basic graphics formatting, such as borders and fills to another selection.
  - Select the text or graphics whose formatting you want to copy. Click on the **Format Painter button**  in the **Clipboard** group on the **Home** tab.
  - The pointer changes into a brush shape. Now apply the copied format by dragging the brush over the desired text.
  - The formatting attributes of the previous text will be applied to the selected text.

2. Header and Footer is used to place some information on top and at the bottom of every page respectively. You can include the title, chapter's heading, date, page, number, author's name, etc. in the section.
3. Indentation determines the amount of spacing between the text and page margins. Indenting basically draws the reader's attention. Indentation feature is used to move the complete paragraph or the first line of a paragraph to a specific position either from the left or right margin. There are some type of indent Increase Indent, Decrease Indent, First Line Indent, Left Indent, Right Indent or Hanging Indent.
4. Page margin refers to the amount of space which is left from the edge of the page and document text. Word 2016 allows you to set the margins on all four sides of a document; i.e. top, bottom, left and right. The default margins are set at 1" from top and bottom and 1" from left and right edge of the page.
5. Word 2016 allows you to preview the document before printing. This is called print preview option.



4

## Data Storage in Computer

- A. 1. (c); 2. (d); 3. (a); 4. (c)
- B. 1. bit; 2. primary; 3. Hard disc; 4. secondary; 5. round
- C. 1. (7); 2. (7); 3. (7); 4. (7); 5. (3)
- D. 1. A computer is an electronic device that works according to the given instructions. It accepts data in the form of raw facts and figures such as numbers, characters and symbols. The input devices are used to enter data into the computer which is the processed by the Central Processing Unit (CPU). This processed data is known as information.

2. The capacity of a computer to store data and information is called its memory. It is used to store the input, processing and output of a computer.
3. RAM is a volatile memory, while ROM is a type of non-volatile memory.
4. Primary memory has limited capacity. So, we need some additional storage device to store the data. The storage device is called secondary memory. Secondary memory is also known as External or Auxiliary memory. The data stored in the external memory is not lost even when the computer is turned OFF. CPU cannot access it directly because it is an external memory. Secondary memory is non-volatile in nature and have large storage capacity.
5. (i) Hard Disk, (ii) CD, (iii) Flash Drive



## More About Scratch

- A.** 1. (a); 2. (b); 3. (a); 4. (b); 5. (c)
- B.** 1. (7); 2. (3); 3. (7); 4. (3); 5. (7)
- C.** 1. Shrink; 2. Pen; 3. Script Area; 4. Sprite List;  
5. Horizontal, Vertical
- D.** 1. Scratch is a free programming language, designed for children to enhance their computing skills. There are some features of Scratch.
  1. Scratch is available free of cost.
  2. It is easy to understand and learn.
  3. It allows playful experimenting with program segments.
2. Click on the ⓘ icon present on the top left corner of a sprite thumbnail to display the Sprite Info Pane. It includes information about the selected sprite as well as few tools for manipulating the Sprite.
3. In Scratch 2.0, the picture on the stage is called a Backdrop.

4. The collection of stepwise instructions given to a Sprite is known as a Script.

Script Area is the place where we pick and drop the blocks to create Script.

5. There are different types of blocks in Blocks Menu :

Control Block, Motion Block, Sound Block, Pen Block, Glide Block.



## Microsoft PowerPoint 2016


- A.** 1. (b); 2. (c); 3. (c); 4. (c)
- B.** 1. (3); 2. (7); 3. (3); 4. (3); 5. (7)
- C.** 1. slides; 2. views, ideas; 3. Placeholder; 4. F5; 5. .pptx
- D.** 1. A presentation is a collection of slides arranged in a systematic order that displays information along with graphics sound and animation. While a slide is like a page of a powerpoint presentation that displays some information related to the topic.
2. (a) A PowerPoint presentation helps us in presenting the views and ideas effectively by creating a good visual impact on the audience.
- (b) PowerPoint is an effective tool to present and organize the course contents in the classroom and encourage students, learning.
3. The Slides Navigation Pane is a small window on the left side of the presentation window while the Slides Pane is the middle section of PowerPoint window where you can work directly on individual slides.
4. A new blank presentation appears in the PowerPoint. By default, it contains only one slide with dotted rectangular boxes called placeholders.
5. A template is a pre-designed presentation that includes custom formatting and designs. It can save a lot of time and effort when starting a new presentation.



## Working With Slides

- A.** 1. (a); 2. (b); 3. (c); 4. (b)
- B.** 1. (3); 2. (7); 3. (3); 4. (7); 5. (3)
- C.** 1. Slide Layout; 2. Slides; 3. Word Art; 4. Shapes;  
5. Rotate
- D.** 1. To add a new slide :
- Select the slide after which you want to add a new slide.
  - If you want that the new slide should have the same layout as that of the previous one then.  
On the Home tab, in the Slides group, click the new Slide button and not on its drop-down arrow.
  - If you want your new slide to be based on any other slide layout then.  
On the Home tab, click on the New Slide drop-down arrow to display the available layouts.
  - Click on the desired slide layout. PowerPoint will add a new slide with the selected layout in the slides pane. The new slide can be seen in the Slides Navigation Pane on the left.
2. Sometimes you may have to add more text than the area provide for entering text in the slide. The Text Box tool present on the Insert tab gives facility to add more text to your slide. Text Box is a placeholder, where you can enter and manipulate text you can move the text box along with its contents anywhere on the slide.
- Click on the Text Box tool on the Insert tab in the Text group. Hold down the left button while dragging the mouse diagonally towards right and release the mouse button.
  - You will get a rectangular box on the slide with the cursor inside it. Enter the text, 'Kids Education'.



3. The Word Art feature helps you to create special text effects. It gives a unique look to the text. Using the Word Art, you can make the text curved way, shadowed or apply 3D effect, etc.
4. Shapes is a drawing feature that helps in inserting different shapes into a slide. Shapes can be resized, rotated, flipped and coloured too.
  - Click on the Shapes button  on the Insert tab in the Illustrations group. Shapes drop-down gallery will appear displaying different categories, like Lines, Rectangles, Flowchart, etc.
  - Click on any shape from any category. We have selected Smiley Face from the Basic Shapes category.
  - The pointer changes to a '+' sign. Place the pointer on the slide where you want to place the object and drag it to adjust the size of the selected object/shape.
5. Resizing stretches or shrinks the dimension of an object.
  - To increase or decrease the size of an object, select the object.
  - Bring the pointer to any of the eight resizing handles on the selected object. When the pointer changes to a double-headed arrow (×), drag the handle inward to decrease and outward to increase the size of a shape.
  - If you want to resize the object by keeping the center of an object in the same place then hold down the Ctrl key as you drag.



## Introduction to Excel

- A. 1. (c); 2. (a); 3. (b); 4. (a); 5. (c)
- B. 1. (7); 2. (7); 3. (3); 4. (3); 5. (3)
- C. 1. delete; 2. left; 3. .xlsx; 4. F2; 5. Formula

- D.** 1. A Quick Access Toolbar is configurable toolbar where you can pin different commands.
2. Cell References often refer to individual cells such as A1, B38, or Z345, they can also refer to a group or range of cells. Ranges are identified by the cell references of the cells in the upper left and lower right corners of the range. The two cells references used for a range are separated by colon ( : ) which tells Excel to include all the cells between these start and end points. An example of a range of adjacent cells would be B2 : D6.
3. **To create an Excel Worksheet :**
- Click on File tab and from the Backstage View.
  - Click on New option from the left-hand Panel, which in turn will display various templates to choose from your Workbook.
  - Click on Blank workbook to start with.

Alternately you can use the keyboard shortcut Ctrl + N to start with a new workbook.

#### 4. **To Enter Data into a Cell**

1. Click the cell where you want to type information. Type the data. An insert point (blinking cursor) appears in the cell as the data being typed.
2. The data can be typed in either the cell or the Formula Bar.
3. Data being typed appears in the both the active cell and in the Formula Bar.
4. Notice the Cancel and Enter buttons in the Formula Bar. Click the Enter button to end the entry and to turn off the Formula Bar buttons similarly to undo any entry that has been made in the cell use the **Cancel button** or press on Esc (Escape) key on the keyboard.

## 5. Direct Cell Editing

If the original entry is long and required only a minor adjustment (in spelling, for example), then you can directly edit the information in the cell.

1. Double-click or press the function key F2 on the cell that contains the information to be changed.
2. The cell is opened for direct editing.
3. Make the necessary corrections.
4. Press Enter or click on Enter button on the Formula bar to complete the entry.



## Multimedia And Internet

- A.** 1. (b); 2. (c); 3. (b); 4. (a)
- B.** 1. (7); 2. (3); 3. (3); 4. (3); 5. (7)
- C.** 1. multimedia; 2. navigation; 3. website; 4. Hyperlink; 5. web browser
- D.** 1. A computer technology that displays information using a combination of full motion video, animation, sound, graphic and text with a high degree of user interaction is known as Multimedia.
2. Various steps for installing a program, game or utility, from a CD that does not contain the AutoPlay feature are listed below :
- Step 1 :** Insert the CD in the CD-drive.
- Step 2 :** Open Computer by double-clicking on the icon visible on the desktop.
- Step 3 :** Double-click on the drive showing CD or DVD drive to open it.
- Step 4 :** Locate the set-up file, double-click on it and complete the installation process.
- Once the installation is complete, the program is saved in the All Programs menu. We can open this program by

- clicking on the Start button and then on All Programs on the desktop. The program starts on clicking the CD-icon.
3. Internet is a worldwide network of computers that is used for exchanging information.
  4. Internet is a very powerful tool in today's world. Almost everyone is taking benefits from it. Some of its uses are as given below :
    - It is the largest collection of information, where you can find information on any topic in the form of text, animation, pictures, videos, etc.
    - You can send and receive electronic letters from your friends or relatives.
    - You can play games with people on the other side of world.
    - Through Internet, you can do live chat with people living anywhere in the world with the help of computers equipped with web cameras.
    - You can even buy things using Internet and have them delivered at your door steps.
    - You can pay your electricity or telephone bills or reserve your movie tickets.
  5. **World Wide Web (WWW)** : World Wide Web (WWW) is the largest collection of electronic books, which provides all types of information in the form of text, pictures or animation to its users.

**Hyperlink** : Hyperlink is an underlined or highlighted text on a web page, which allows us to move from one web page to another.

**Website** : A website is a collection of web pages containing related information. It is like a book having various chapters on different topics. Many people develop their own websites which they maintain for a specific task or for fun.

**Web Browser** : A web browser is an application software which is used to connect to the internet, to access information from a web-server. A web browser displays web pages. Some popular web browser are : Internet Explorer, Firefox, Chrome, Opera, etc.



## Evolution of Artificial Intelligence

- A.** 1. (c); 2. (b); 3. (a); 4. (b); 5. (c)
- B.** 1. (3); 2. (7); 3. (7); 4. (3); 5. (7)
- C.** 1. 1943; 2. Dartmouth; 3. decision making; 4. deep blue; 5. rovers
- D.** 1. Artificial Intelligence is an ability of a machine to think and learn.  
2. Alan Turing, was an mathematician, pioneered machine learning in 1950.  
3. WABOT was the first intelligent robot.  
4. Google Home is an app which is a single place to set up manage, automate and control thousands of compatible devices in your home.  
5. Kinect was the first gaming device that tracked human body movement using a 3D camera and infrared detection.

## Computer-5



### More About Computer

- A.** 1. (b); 2. (a); 3. (c); 4. (a); 5. (b)
- B.** 1. (3); 2. (7); 3. (3); 4. (3); 5. (7)
- C.** 1. accurate; 2. hard disk; 3. internet; 4. cheques;  
5. research
- D.** 1. The following features make a computer very useful to us.
- Speed, • Storage, • Accuracy,
  - Diligence, • Versatility, • Reliability
2. Teachers use computers to teach different subjects. They use them for preparing lessons, report cards and time tables.
3. Doctors used computer to maintain records and treatments details of patients.
4. Computers are most often used to get access to a library's book database. A library's computerized book database makes it easier to keep records of books issued and returned.
5. Computers help in research and invention in launchings missiles and satellites conducting, experiments, making different scientific equipments, weather forecasting and many more scientific activities.



### Understanding Windows 10

- A.** 1. (b); 2. (a); 3. (a); 4. (c); 5. (b)
- B.** 1. (7); 2. (3); 3. (3); 4. (3); 5. (7); 6. (3)
- C.** 1. operating system; 2. personalize; 3. pictures;  
4. Application Icons; 5. Aero Shake

- D. 1. Some features of Windows 10 are as follows :
- It is easy to use, more interactive and most secured version of Windows.
  - It is much more personal and provides you with the ability to redecorate your desktop with new backgrounds, themes, colours and icons.
  - The enhanced search tool, Cortana enables you to search anything on your system or the web, directly. It lets you play music, videos, write notes, set alarms and reminders, performs calculation, send e-mails, change wallpapers and a lot more through voice commands.

2. The different part of the Taskbar :



- Start Button** : It display on the extreme left side.
  - Search Box** : It is a search box which facilitates browsing both from your computer and the web.
  - Task View** : The Task View button which allows you to create desktops at the same time.
  - Notification Area** : It displays the status and notifications about the programs running on a computer e.g. network connectivity, battery status etc.
  - Peek Button** : It makes your open windows transparent, so that you may see your desktop.
3. Universal apps is an integral part of the Windows 10 store. As the name suggests, these are apps that work on all device sizes from phones to high-powered desktop PCs.
4. The Start Menu in Windows 10 is a blend of old menu, found in Windows 7 and Start Screen in Windows 8.

When you click on the Start button at the bottom left of the screen, you get two panels side by side.



## Working With Tables

- A.** 1. (c); 2. (b); 3. (b); 4. (c); 5. (b)
- B.** 1. (7); 2. (7); 3. (7); 4. (3); 5. (7); 6. (3)
- C.** 1. Tab; 2. Quick Tables; 3. Table Resize;  
4. Autofit Window; 5. Formatting; 6. Splitting
- D.** 1. A table is an organised arrangement of text in the form of rows and columns.
2. (a) • When you click on the tables you notice a plus sign + at the upper left corner. This is called Table Move Handle which is used to move a table.
- A small hollow square at the bottom right corner of the table is called Table Resize Handle. This handle is used to resize a table.
- (b) • Splitting a cell means dividing the selected cell into separate cells.
- Sometimes data is split in numerous segments of a cell and you want to combine it in a single cell, to give it a better look. Merging the cells provides a way to consolidate data in one cell.
3. You can perform calculations on the numeric data entered in a table.
- Enter the data in a table.
  - Select the Layout tab.
  - Click in the cell where the result is to be displayed. Select the Formula button in the Data group.
  - The Formula dialog box appears.
  - Note that the SUM formula is already displayed. Click Ok.
  - The result appears in the selected cell.



4. Formatting controls the overall appearance of a table. After creating a table, you can format the entire table by using the Table Styles features.
5. You can resize the column width either by using the option available on the Layout tab or by using the mouse pointer.
  - Select the column whose width you want to change.
  - Click on the Layout tab.
  - Select the Properties button in the Table group. The Table Properties dialog box appears.
  - Click on the Column tab.
  - Select the Preferred width check box. Now increase or decrease the column width either by using the spin arrows or type in the specific values to set the width. Click Ok.

Similarly, You can change the row height by selecting the Row tab in the Table Properties dialog box.



## More On PowerPoint 2016

- A. 1. (b); 2. (c); 3. (a); 4. (b); 5. (c); 6. (b)
- B. 1. (7); 2. (7); 3. (7); 4. (3); 5. (7); 6. (3)
- C. 1. Slides; 2. Presentation View; 3. Ink Equations; 4. Slide Sorter; 5. Comments; 6. Photo Album
- D. 1. It displays a miniature view of all the slides or a presentation in horizontally sequenced thumbnails Slide Sorter View is helpful if you need to change the order of slides, insert or delete the slides, add transitions and set the timings for the Slide Show.
2. (a) A slide is like a page in a presentation containing brief information that you want to communicate to your audience while a presentation is a collection of slides arranged in a sequential manner to convey new ideas and import information effectively.

- (b) Normal View is the main edition view, which is used to write and design the presentation while the outline view displays only the text on your slides in the Outline Pane.
3. The Smart Lookup features allows you to find the information for the selected word or phrase on the web, using the search engine Bing. It does not force you to open up the web browser every time you need a quick word definition.
  4. Comments are a great way to provide feedback to others about their presentation. They can also be used to collaborate and work together on a presentation. They are more like sticky notes that can be added to an object text or to a whole slide comments in a slide can be turned on or off anytime.
  5. The Photo Album is a feature that allows us to club our personal and business photographs together to use for a presentation. It does not provide a way to insert online picture directly, so you should download pictures from your online storage and put them in a folder on your hard drive. This way, you can access all the images you want to include.
  6. Office 2016 provides you with another amazing feature that enables you to annotate with ink to write notes, create shapes, highlight a key concept and much more. You can also convert the hand drawn shapes to uniform geometric shapes by selecting them and then selecting convert to shapes.
  7. This is a new feature using which we can add math equations into your presentation. Ink equation is easier to use if you have a touch-enabled device connected to your system. You can use your finger or a stylus to write equations directly on the screen and PowerPoint converts

them into text. However, you can also use mouse to write the equations if you do not have a touch device.



## OneNote

- A. 1. (b); 2. (b); 3. (a); 4. (c); 5. (b)
- B. 1. (3); 2. (3); 3. (3); 4. (7); 5. (7); 6. (7)
- C. 1. Tab; 2. Plain White; 3. Templates; 4. Header; 5. Note pages
- D. 1. • **Integration with other apps** : Using OneNote, you have the advantage of integration with other apps services too.
- **Take notes right on the web** : With Microsoft Edge (the new browser for Windows 10), you can use the pen with your touch screen device or mouse to write on the web. After you take notes, or highlight on a webpage, you can share your handiwork to OneNote.
  - **Send contents to yourself in email** : With [me@onenote.com](mailto:me@onenote.com), you can send contents from your inbox, right to OneNote. It is a wonderful feature to store important contents so that you can find them quickly later on.
  - **Insert video and audio** : You can insert videos from Office Mix, YouTube and Vimeo into a page in OneNote. You can even incorporate audio notes, pictures, and clip the web directly to OneNote by using the OneNote Web Clipper.
2. Whenever you create a new notebook, it automatically creates one new section for you. You can right-click its section tab and click the Rename command to give the first section a meaningful description. You can create additional sections at any time. While whenever you create a new section in your notebook, it automatically contains a single blank page. You can type a title for this

page and begin to take notes on it. You can keep writing on the page for as long as you need (unlike on paper, you won't run out of space), or you can create additional pages at any time.

3. OneNote provides you a bundle of pre-designed layouts called Templates. These templates enhance the appearance of your notebook. They are organized into 5 different categories, namely Academic, Blank, Business, Decorative and Planners. A template when select, adds a new page to your notebook with an attractive background and a uniform layout.

#### 4. **To Add A File**

- Choose Insert > File Printout.
- In the Choose Document to Insert dialog box, select the file that you want to insert.
- OneNote will insert the contents of the file to the current page in your notebook. You can now add or edit text in the file.

#### **To Attach A File**

- Select Insert > File Attachment.
  - This option attaches a file by placing the file icon at the cursor position.
  - You can double-click on the icon to open it in a separate window.
5. OneNote allows us to share our notebook with multiple people at the same time. This sharing enables us to work in collaboration so as to include inputs from other people. While sharing, you can also specify if the other person can just view or can also make modification in the work. The changes made by others are saved automatically and get reflected in real time. OneNote notebook can be shared through mail via a link or as a shared notebook, in an online meeting.



## Microsoft Excel 2016

- A. 1. (b); 2. (a); 3. (c); 4. (b); 5. (a)
- B. 1. (7); 2. (3); 3. (7); 4. (3); 5. (3)
- C. 1. single; 2. Merge & Center; 3. Formula; 4. sheet;  
5. column
- D. 1. Microsoft Excel is a popular spreadsheet component of Microsoft Office Suite, that allows you to store, organise, calculate and manipulate the available data. It is widely used to perform mathematical calculations. The data is spread in a tabular form consisting of rows and columns. It provides inbuilt features and tools, such as formulas, functions, and data analysis tools that make it easier to work with large amount of data.
2. The Excel window that appears on the screen is called a workbook. It is assigned a temporary name as Book 1, workbook is like a notebook, which consists of a number of pages called worksheets. A worksheet is a grid like area, made up of rows and columns, where you can enter and work with data.
3. A cell is an intersection of a column and a row in a worksheet. Each cell is identified by the column letter and row number, which is known as cell address. A cell can contain upto 32, 767 characters.
4. The formula Bar is located to the right of the Name Box. This bar shows the characters and formulas that you enter in active cell while name box displays the location of the cell pointer.
5. **Types of Data** : Three types of data can be entered in a Microsoft Excel worksheet, which are as follows :
- Numbers
  - Text
  - Formulae
- Numbers** : Numbers are values that consist of numerals from 0 to 9 and the characters, like +, -, !, @, \$, %, ^ ,

&, etc. They can be used in calculations. In addition to actual numbers, Excel also stores data and time as numbers.

By default, numbers are right aligned in a cell.

**Text :** Text data can contain alphabets, numbers, spaces and special characters. Text data is not used in calculations. By default text data is left aligned in a cell. Most often, text entries are used for worksheet headings, names, and for identifying columns of data.

**Formulae :** Formulae are mathematical equations involving number values, operators, and cell addresses used for performing calculations on a worksheet. Formulae can range from basic mathematical operations to complex calculations. Formulae begins with an equal to (=) sign.



## Programming in Scratch 3.0

- A.** 1. (b); 2. (b); 3. (a); 4. (d); 5. (a)
- B.** 1. (3); 2. (3); 3. (3); 4. (3); 5. (7)
- C.** 1. wrap; 2. keyboard; 3. cap; 4. event; 5. red
- D.** 1. (d); 2. (c); 3. (e); 4. (a); 5. (b)
- E.** 1. The control block menu includes blocks that control the execution of a script. There are 11 control blocks.
2. In programming, sometimes a program can give more than one result. This happens only when you add conditions to it. For example, in a program there are two numbers, if one number is greater than 10, then it will add the two numbers, else it will subtract them. This will happen only if you add a condition using the keywords 'if' or 'if-else'.
- The Control block menu has block that are used to add conditions in a program.

3. Some blocks in Scratch run with the help of keyboard keys. The when () key pressed block performs an action once the keyboard key is pressed. The keyboard keys can be selected from the drop-down arrow inside the block. The blocks placed after this block only execute once the selected key is pressed.
4. Everyone makes decisions in day-to-days life. But, some decisions or complex problems require logical thinking to solve it. Let us consider a general situation to understand the concept. For example, you have to choose dance or a sport activity after school. Now, you have to apply reasoning to make this decision.

For Example:

1. How much time will you get daily after your school?
2. Will the activity affect your studies?
3. If you join an activity, will you be able to play?

In such a situation, you have to apply logical thinking. Logical thinking includes problem identification, information searching and solution.

5. These blocks are used to begin every script as it has rounded top and a bump at the bottom. The other blocks can be placed only below these because of shape. There are 11 Hat blocks found in the Scratch editor, six of which are in the Events category, one in the control category and one in the My Blocks category (if custom block is created).
6. Variables : These blocks are known to hold values and string. They are 5 in number.



## Internet and E-mail

- A.** 1. (a); 2. (c); 3. (b); 4. (b)
- B.** 1. (3); 2. (3); 3. (7); 4. (7); 5. (3)

- C. 1. information; 2. International Network; 3. Google; 4. blind carbon copy; 5. Links
- D. 1. Internet is one of the best technologies gifted to mankind. It has brought the entire world closer. Internet stands for 'International Network'. It is the largest computer network in the world connecting millions of computers.
2. A Search Engine is a software that searches various web pages on the world wide web for a particular information. It requires a user to enter a keyword related to the information to be searched and displays the search results as a list of link to the pages on which the keywords are found. Some example of search engine are :
- (a) Google (b) Yahoo (c) Bing
3. E-mail stands for electronic mail. It is a facility on the internet to send and received messages anywhere around the world, in real time. It works like conventions correspondence, but it is instant and convenient. The best part of e-mail is that a single mail can be sent to a numbers of persons at a time. We can attach photos, videos, or important data along with our messages. These extra files are called attachments.
4. In Cc, one can specify the addresses of the persons to whom one wants to send a copy of the mail. The e-mail addresses mentioned in this field are visible to all the recipients of the mail. It stands for carbon copy.
5. These are two types of internet connection :
- (a) Mobile Internet allows a user to access internet over a smartphone using the network provided by the phone service provider. This technology provides high speed wireless internet access. The speed generally varies between 2G, 3G and 4G.



- (b) Hotspots are sites that provide wireless internet access over short distances. It uses Wi-Fi technology and allows the user to connect to the internet through radio waves.

## 6. WeTransfer

WeTransfer is a free online file transfer service that enables you to send files upto 2GB from one system to another. Both the sender and the recipients are required to have an e-mail address to transfer the files. The recipients receive the file through mail.

### **Sendspace**

Sendspace is another file transfer service that helps us to share large files of upto 300 MB, free to cost. Although registration is not required, but as a registered user, you can avail its other features alongwith uploading, like tracking the files, editing the files etc.

- 7. Modem stands for modulator demodulator. It is a device which allows a computer to send and receive information through telephone lines by converting digital data into an analog signal, used an telephone lines. Modems can be classified as –
  - (a) Internal Modem is a device that is already installed in the computer. It is in the form of a card that is inserted into one of the slots on the main board.
  - (b) External Modem is a modem that is installed outside the CPU. It is in the form of a box that is normally connected to USB port of a computer.
  - (c) PC Card Modem is specifically designed for laptops and handheld computers. It is similar to the size of a credit card and fits into PC card slot on notebook and handheld computers.



## Artificial Intelligence

- A. 1. (c); 2. (b); 3. (c); 4. (a)
- B. 1. (3); 2. (3); 3. (7); 4. (3)
- C. 1. 1983; 2. intelligence; 3. musical
- D. 1. Intelligence comes from learning. Intelligence is used to draw conclusions and solve problems. Intelligence refers to the ability to think, to learn from previous experience, to solve complex problems and to adapt new things. To solve any problem, different types of intelligence are needed.
2. **Verbal-Linguistic Intelligence:** Such people love words. They love reading, writing and making speeches. They like to argue, debate and discuss things. They have good vocabulary and they compose poetries, write essays, participate in spellathons. They become great writers, poets, script writers, lyricists and orators.
3. **Interpersonal Intelligence:** These people love to meet other people, connect with them, develop contacts and have a good social circle. They possess strong communication skills irrespective of language. They are good at maintaining positive relationships with others. Such people become businessman, teachers, sales persons, counsellors, lawyers, public figures, political leaders and influencers.
4. The learning style means the different methods of learning or understanding new information, the way of person takes in, understand, expresses and remembers information. There are four types of learning styles : (i) Visual, (ii) Auditory, (iii) Read/Write, (iv) Kinaesthetic.











