

Teacher's Manual

Computer

with AI



Computer - 6



1. Types of Software

- A.** 1. (a); 2. (c); 3. (c); 4. (a); 5. (b)
- B.** 1. Software; 2. GUI; 3. Disk Cleanup; 4. two; 5. Android
- C.** 1. F; 2. F; 3. T; 4. T; 5. T
- D.** 1. Software directs and guides the operation (input, process and output) of a computer system.
2. A language processor is a software that converts a program written in a computer language into the machine language so that it can be understood by a computer.
There are three kinds of language processor.
Assembler, Compiler, Interpreter
3. The system software is required to control the overall operations of a computer system. It can be classified into three categories.
- ❖ Operating system
 - ❖ Language translators
 - ❖ Utility software

Some examples of popular operating system are :

- ❖ On desktop and laptop computers :



MS Windows 10



Linux



- ❖ In mobile phones :



Android



IOS

4. ❖ Graphical User Interface (GUI)
- ❖ Multi-User Operating System
 - ❖ Multi-processing Operating System
 - ❖ Multi-tasking Operating System
 - ❖ Multi-threading Operating System

❖ Real-time Operating System

5. General Purpose Software

These software are developed keeping in mind the general needs and requirements of a large number of people. Some of the examples are :

- ❖ Words Processing Software
- ❖ Spreadsheet Software
- ❖ Presentation Software

Specific Purpose Application Software

These software are developed keeping in mind, the specific requirements of an organization or an individual.



Examples of this type of software are reservation system used at airports and railway stations, billing system used at supermarkets.





2. Window 10 Overview

- A. 1. (b); 2. (a); 3. (b); 4. (b)
- B. 1. T; 2. T; 3. F; 4. T; 5. F
- C. 1. 2015; 2. Icon; 3. Start menu; 4. Live tiles; 5. Pinned
- D. 1. Windows 10 is the most recent version of the operating system from Microsoft. Officially it was released in 2015 and was initially offered free of charge to legitimate users of Windows 7 and Windows 8.1. This new version combines features from those two previous installments to suit the users in a better way for both desktop/laptop computers as well as mobile devices.
2. To add more icons by following these steps :
- Step 1 : Right-click on the Desktop Background.
- Step 2 : Choose New and Shortcut.
- Step 3 : Browse for the application or file you want to create a shortcut to.
- Step 4 : Assign a name to the shortcut and press Enter.

3. Among the things you can do in the left pane are :
- ❖ Click the username at the top of the menu to change account settings or log in with another user.
 - ❖ Access the applications you use more frequently.
 - ❖ A small arrow next to an application will open a sub-menu with a list of recent documents opened with that application.
 - ❖ Open the “File Explorer” to navigate your folders and files.
 - ❖ Change the settings of your computer like your Internet connection or changing your background.
 - ❖ See different options to shut down your computer.
 - ❖ See a list of all the applications installed in your computer.
4. To pin an application on taskbar follow the given steps :
- Step 1 : Search for the application you want to pin in the Start Menu.
- Step 2 : Right-click on the application.
- Step 3 : Select “More” option at the top of the menu.
- Step 4 : Select the “Pin to taskbar” option.
- This will attach or “pin” the application icon to your Windows Taskbar.
5. Windows 10 introduced shortcuts to perform the task.

SHORTCUT	ACTION
Windows key  + Left arrow	Snap the active window on the left side of the screen
Windows key  + Right arrow	Snap the active window on the right side of the screen

Windows key  + Up arrow	Snap the active window on the top of the screen
Windows key  + Down arrow	Snap the active window on the bottom of the screen



3. Tables in MS Word 2016

- A. 1. (c); 2. (b); 3. (a); 4. (b); 5. (c)**
- B. 1. Table style; 2. Tab; 3. Splitting; 4. borders; 5. Design**
- C. 1. T; 2. F; 3. F; 4. F; 5. F;**
- D. 1.** A table is an organised arrangement of data (text, numbers, pictures and other objects) which consists of a number of rows and columns. The intersection of a column and a row is called a cell.

Data in the form of text or graphics can be entered inside the cell. A column is a vertical series of cells in a table, whereas a row is a series of data items placed in horizontal line in a table. So, tables are required in MS Words.

- 2.** To create a table using the Table dialog box, follow the given steps :
- Step 1 : Place the cursor where you want to insert a table.
- Step 2 : Click on Insert tab.
- Step 3 : Under Tables group click the drop down arrow to open the list of options.
- Step 4 : Select Insert Table option.
- Step 5 : Insert table dialog box will appear. Specify the number of rows and columns in this window.
- Step 6 : Click on OK and your table will be inserted.
- 3.** To apply background colour on the table or on select cells follow the given steps :
- Step 1 : Select the table or select the cells.
- Step 2 : Click on the Design tab.

Step 3 : Click on the arrow below the Shading option in the Table Styles group. A list of colour options appears.

Step 4 : Select the colour of the choice. The colour appears as the background of the table or the selected cells.

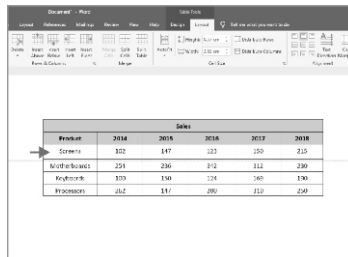
4. While creating and making entry in a table, we might to add columns/rows in between. Word provides the facility to add new column to the right or left of any existing columns and insert rows above or below the selected row.

❖ To add a new column, select the column by clicking on its top border, adjacent to which we want to insert a new column. The Table Tools tab appears on the ribbon.

❖ Click on the Layout tab under it. Select either the Insert Left or Insert Right button in the Rows & Columns group. An empty column gets inserted in the table as per chosen option.

5. Using the Mouse Pointer

Step 1 : Place the pointer on the edge of the column or row.



		Sales				
Product	2014	2015	2016	2017	2018	
Sensors	322	147	123	155	215	
Multi-Boards	224	230	312	312	230	
Keypunch	370	150	124	140	190	
Processors	252	117	280	212	258	

Resizing using the mouse pointer

Step 2 : The mouse pointer changes to a double-line with an intersecting arrow →. Click and drag to adjust the row height/column width according to the need.

Using the Layout tab

Step 1 : Select the row(s) or the column(s) to be resized.

Step 2 : Click on the Layout tab.

Step 3 : Click the Properties button. The Table Properties dialog box appears.

Step 4 : In the Table Properties dialog box, do the following :

Click the Row tab, select the Specific height checkbox and enter a value for the row height.

Click the Column tab, select the Preferred width checkbox and enter a value for the column width..

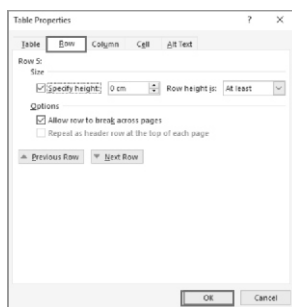


Table properties (Row)

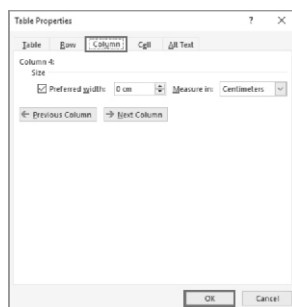


Table properties (Column)

Step 5 : Click on the OK button.



4. More on MS Word

- A.** 1. (c); 2. (c); 3. (a); 4. (c); 5. (b)
- B.** 1. F; 2. F; 3. T; 4. T; 5. F
- C.** 1. Top; 2. Mail merge; 3. Right; 4. Main document; 5. Enter
- D.** 1. Headers and Footers are parts of a document that contain special information such as the document title, company logo, any photo, page numbers, etc. The header is a section of the document that appears in the top margin, while the footer is a section of the document that appears in the bottom margin.
2. To insert a header, follow the given steps :
- Step 1 : Select Insert tab.
- Step 2 : Click either the Header or Footer command. A

drop-down menu will appear.

Step 3 : From the drop-down menu, select Blank to insert a blank header choose one of the built-in options.

Step 4 : The Design tab will appear on the Ribbon and the header will appear in the document.

Step 5 : Type the desired information into the header .

Step 6 : When you're finished, click Close Header and Footer in the Design tab or hit the Esc key.

3. To insert a page number, follow the given steps :

Step 1 : Click the Insert tab, and click Page Number button available in Header & Footer section. This will display a list of options to display page number at the top, bottom, current position, etc.

Step 2 : When you move your mouse pointer over the available options, it displays further styles of page numbers to be displayed on the page. For example, when you take mouse pointer at Bottom of Page option available under Page Number it displays list of styles as shown:

Step 3 : Select the page number style which you like by clicking over it.

Step 4 : Click Close Header and Footer button.

You can format your page numbers using Page Numbers Format option available under the Page Number listed options.

4. Mail merge is a process used to produce multiple copies of a document from a single data source.

5. The entire process of Mail Merge includes the three steps.

❖ Create the Main Text Document, which contains the main body of the letter, different field names, and merge instructions.

- ❖ Create the Data Source, which feeds the main document with required information.
- ❖ Create a Merged Document using the Main Text Document and a Data Source.



5. PowerPoint : Advanced Features

- A. 1. (c); 2. (b); 3. (c); 4. (a); 5. (c)**
- B. 1. F; 2. F; 3. F; 4. T; 5. F**
- C. 1. Animation; 2. Transition; 3. Format, Playback; 4. Whoosing star; 5. Preview**
- D. 1. Animation effects enhance the visual appeal of the presentation and help to grab the attention of the audience. PowerPoint offers many animation effects. These have been organised under four categories.**
- 1. Entrance Effects :** These effects control the manner in which the object is introduced during the slideshow.
 - 2. Emphasis Effects :** These effects occur when the object is on the slide during the slideshow. They are used to emphasis the object.
 - 3. Exit Effects :** These effects control the manner in which the object exits during the slideshow.
 - 4. Motion Paths :** These effects enable objects to move from one position to another on the slide on the specified path during the slideshow.
- 2. A slide transition is the visual motion when one slide changes to the next during a presentation, like wipe down, wipe left, etc.**
- These effects make your slide slow lively and add dynamic flair to it.
- 3. To add your own sound to the slide, first you have to record it. While recording your sound, it is essential to connect a**

microphone to your computer. To do this, follow the given steps :

- Step 1: Select the slide where you want to insert the recorded sound.
 - Step 2: Click on the Audio drop-down arrow in the Media group on the Insert tab.
 - Step 3: Choose the Record Audio option from the drop-down menu.
 - Step 4: The Record Sound dialog box appears.
 - Step 5: Click on the Record button to start recording and click on the Stop button when you finish recording. Now you can use the Play button to listen to the recorded sound. Click on OK if you want to use it.
 - Step 6: The audio file will get inserted in the slide. Once the audio file is inserted, the audio clip icon appears on the slide.
 - Step 7: The Format and Playback tabs appear when you click on the audio clip icon on the slide.
4. PowerPoint lets you insert videos on the slides and also provides options for editing the video.

Select the slide where you want to insert the movie file and follow these steps :

- Step 1: Click on the Insert tab.
 - Step 2: Click on the down arrow under the Video option in the Media group.
 - Step 3: Choose the Video on My PC option. The Insert Video dialog box appears.
 - Step 4: Select the desired video file and then click on the Insert button. The video file gets added to the slide.
5. There are many options available for printing a

presentation. They are :

- ❖ **Slides** : Slides are like the pages of the presentation.
- ❖ **Handouts** : This option allows you to have more slides in a page.
- ❖ **Notes Page** : This includes the slides and the speaker notes.
- ❖ **Outline View** : This will print the outline of the presentation.



6. Working in MS Excel 2016

- A. 1. (a); 2. (b); 3. (c); 4. (b); 5. (a)**
- B. 1. T; 2. F; 3. F; 4. T; 5. F**
- C. 1. Formula; 2. Cell; 3. Formula; 4. Ctrl + A; 5. Editing**
- D. 1.** Microsoft Excel is an electronic spreadsheet program developed by Microsoft Corporation of USA. It is used to create worksheet, charts etc. You can enter numerical data in worksheet and edit it whenever required.
- 2.** Workbook is like a notebook, which consists of a number of pages. Worksheets in a workbook are like pages of a notebook. A Worksheet is a grid like area, made up of rows and columns, where you can enter and work with data. By default an Excel workbook displays 1 worksheet at the bottom, with the name Sheet 1. We can add any number of worksheets in a workbook according to the limits of memory available on a computer.
- 3.** A formula bar below the Formatting toolbar where we can type formulae or edit the contents of a cells. The formula bar displays the contents of an active cell.

The new box displays the address of the currently active cell.

4. Three types of data can be entered in Microsoft Excel worksheet, which are as follows:

- ❖ Number
- ❖ Text
- ❖ Formulae

Number

Numbers are values that consist of numerals from 0 to 9 and the characters, like +, -, 1, @, \$, %, ^, &, etc. are included in numeric data. 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

A formula is a mathematical equation 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 begin with an equal to (=) sign.

5. To insert a new column, follow the given steps :

Step 1 : Select the columns(s) to the left of which you want to insert a new column.

Step 2 : Open the Home tab. In the Cells group, click the Insert button.

A drop down menu appears.

Step 3 : Select the Insert Sheet Columns option.

A blank column will get inserted



7. More on the Internet

- A.** 1. (c); 2. (c); 3. (c); 4. (a)
- B.** 1. Internet; 2. Free video; 3. Digital music; 4. Data, information
- C.** 1. T; 2. F; 3. F; 4. T
- D.** Answer the following questions:

1. Use of internet in our daily life is dependent on desire and goals. Activities in daily life are decided after the use of the internet. The internet provides us with useful data, information, and knowledge for personal, social, and economic development and it is up to us to utilise our time on the worldwide web in a productive manner.

Three uses of the Internet are:

- (i) The internet helps students access online resources, e-books, and educational videos.
 - (ii) People can buy products online from various e-commerce websites.
 - (iii) The internet provides instant access to global news and digital journals.
2. The internet helps students by providing online learning resources, e-books, educational videos, research materials, and virtual classrooms.
3. An Internet address uniquely identifies a node on the Internet. Internet address may also refer to the name or IP of a Website (URL). It can also represent someone's email address.
4. (i) Google (www.google.com) : Google is a fast, relevant, and the largest single catalogue of web pages available today. It offers images, Maps, news, and features for locating photos, geographic directions, news headlines and much more.

- (ii) Ask Jeeves (www.askjeeves.com): Ask Jeeves is also a popular search engine, which uses crawler-based technology to provide results to its users.
5. To download a file in Microsoft Edge, follow these steps:
- Open Microsoft Edge.
 - Visit the website with the file.
 - Click the download button or link.
 - Select a folder to save the file.
 - The download will start automatically.
 - Click the file to open it.



8. Uncovering the world of AI

A . Fill in the blanks.

1. Intelligence; 2. Repeatedly; 3. Opportunities; 4. To make better decisions; 5. Costly

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

C. Answer the following questions:

1. Alan Turing was a British mathematician, logician, and computer scientist. He is considered the father of modern computing and artificial intelligence.

His Contributions to AI:

Turing Machine – A theoretical model that became the foundation of modern computers.

Turing Test – A test to determine if a machine can think like a human.

2. AI makes life convenient by powering virtual assistants, smart home devices, navigation apps, online shopping recommendations, and chatbots, all of which save time and improve daily tasks.

3. These are the following three types of AI :
 - (i) Narrow AI (Weak AI) – This AI is designed to do one specific task, like recognizing faces or suggesting movies.
 - (ii) General AI (Strong AI) – AI that thinks and understands multiple topics, similar to a human. Scientists are working on it.
 - (iii) Superintelligent AI – ASI would be smarter than humans and could solve complex problems with ease. For now, it only exists in science fiction.
4. Machine learning improves AI by enabling systems to learn from data, recognize patterns, and improve their performance over time without explicit programming.
5. Two advantages of AI:
 - (i) AI can complete tasks much faster than humans.
 - (ii) AI can work continuously without breaks.Two disadvantages of AI:
 - (i) AI might replace some jobs, leading to fewer job opportunities for people.
 - (ii) Developing and maintaining AI can be very costly.