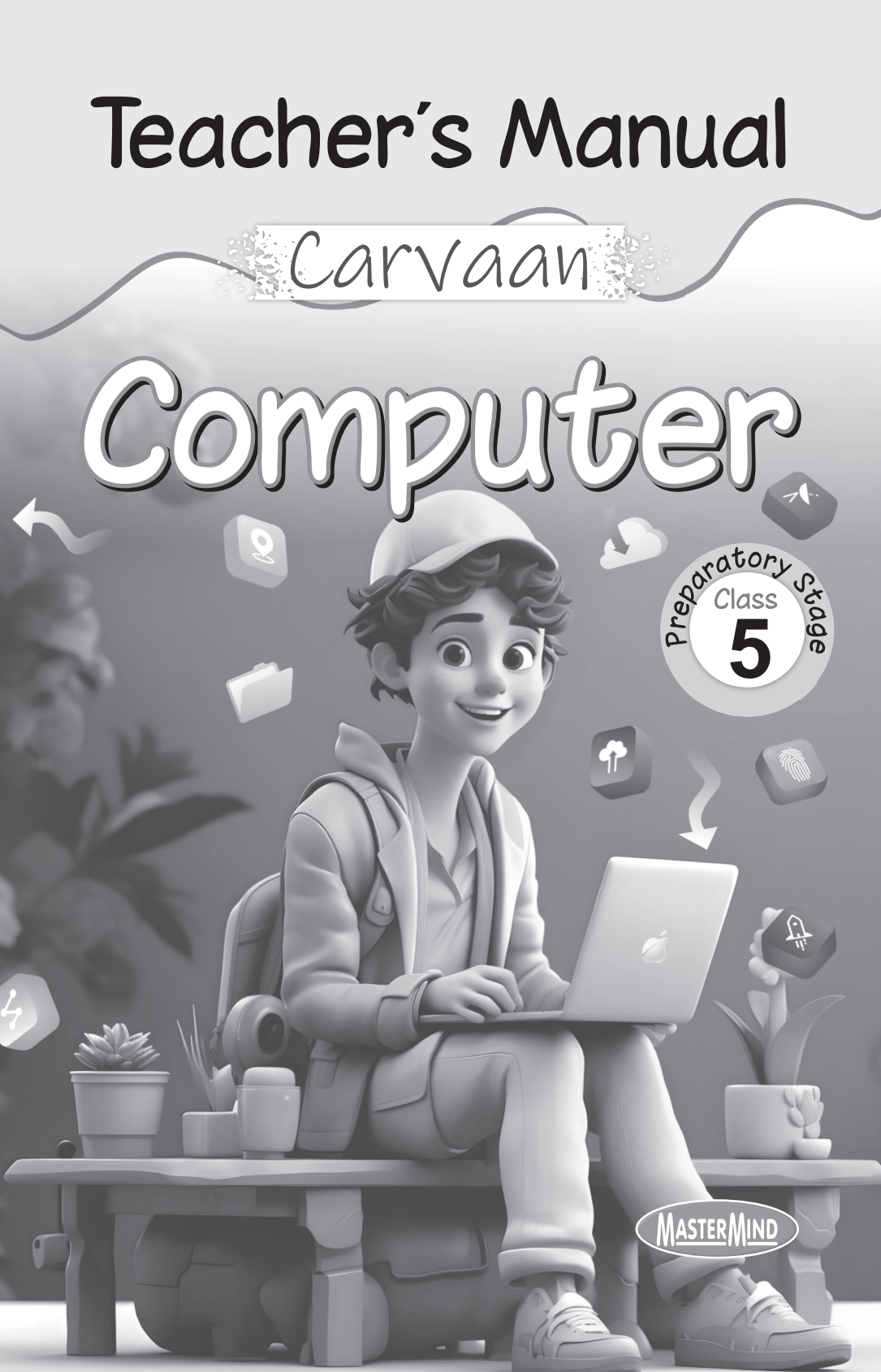
Teacher's Manual

Carvaan

Computer



Carvaan Computer-5

1 Evolution of Computer

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

B. **1.** Artificial; **2.** Transistors; **3.** Napier bones; **4.** third; **5.** Heaven, earth;

C. **1.** F; **2.** T; **3.** F; **4.** F; **5.** T;

D. **1.**

Third Generation Computer	Fourth Generagtion Computer
1. Integrated Circuits (IC) were used as the main technology.	Very Large Scale Integrated (VLSIC) circuits were used.
2. Magnetic disks were used for the storage.	High capacity Magnetic disks are used to store data.
3. Keyboard was used as an input device.	Keyboard, Mouse, Scanner etc., were used as input devices.
4. Monitors and printers were used as output devices.	Plotters and speakers have evolved as output devices.

2. Second Generation Computers (1956-63)

- ❖ The Second generation computers used transistors in place of vacuum tubes.
- ❖ Like the first generation, these computers relied on Magnetic Tapes.
- ❖ Second generation computers moves from machine language to assembly language, which allowed the programmers to specify instructions in words. Fortran, Cobol, Basic languages came into existence in this generation.
- ❖ Punches cards and paper tapes were used as input devices, and output was presented through printouts.

❖ These computers were faster, cheaper, smaller and more efficient than the computers of first generation. For example : IBM 1400, IBM 350, etc.

3. ENIAC

ENIAC (Electronic Numerical Integrator And Computer), the first general purpose electronic digital computer was invented by John Mauchly and J. Presper Eckert in 1946. It consisted of 18,000 vacuum tubes and was 1000 times faster than the Mark I. It could add two large numbers in 200 microseconds.

UNIVAC

UNIVAC (Universal Automatic Computer) was the world's first commercially available computer, designed by J. Presper Eckert and John Mauchly in 1951

It was the first computer to handle both numeric data and text data.

4. A French Mathematician Blaise Pascal in 1642 invented a device called Pascaline. It could add and subtract numbers. In this device the multiplication was done by repeated additions and division was done by repeated subtractions.

5. The word ABACUS is derived from the Greek word ABAX. It means table or board covered with dust. This device was used to Count, Add and Subtract by moving the beads up and down. Abacus is made up of wooden frame in which rod where fitted across with rounds beads sliding on the rod. It is dividing into two parts called Heaven and Earth.

2 Computer Software

A. **1.** (c); **2.** (c); **3.** (a); **4.** (c); **5.** (a);

B. **1.** Application Software; **2.** assembler; **3.** input, output; **4.** Operating system; **5.** system, application;

C. **1.** F; **2.** T; **3.** F; **4.** F; **5.** F;

D. 1.

System Software	Application Software
System software is a type of program installed to control the operations of a computer system and run the application programs.	Application software is installed as per the requirement of the user. It utilizes the capability of a computer on which it is installed.
System software includes programs, such as compilers, system utilities, debuggers, drivers, assemblers, etc.	Application software includes graphic, software, word processors, and spreadsheet programs, etc.
You cannot interact with system software while working on a computer as it runs in the background.	A user can interact with application software while performing different activities.
System software can run independently of the application software.	Application software cannot run without the presence of the system software.

2. Some of functions of word processing software–

- ❖ Creating, editing, saving and printing documents.
- ❖ Copying, pasting, moving and deleting text within a document.
- ❖ Formatting text, such as font type, bolding, underlining or italicizing.
- ❖ Creating and editing tables.

3.

Utility Softwares	Characteristics
Backup Utility	It maintains a copy of data on the hard disk so that the valuable data is not permanently lost.
Disk Defragmentation	It helps in rearranging the files and the blank spaces.

Antivirus Software	A virus can be harmful for your computer. It may destroy your computer. To avoid such inconvenience, the antivirus software are used. They scan the virus and also remove them. McAfee, AVG, Avira and Norton are the examples of antivirus software.

4. An operating system is a software which is needed to operate a computer. It controls the entire working of a computer. It is an interface between the user and the hardware and enables them to work together.

An operating system acts like a head of the family, who is responsible for overall management of the family. As the head of the family it manages all the affairs by giving instructions, looking after the schedules of children the same way an operating system perform various functions to manage the working of a computer.

The most important functions of an operating system can be defined as:

Device Management (Input/Output) : An operating system controls the working of all input and output (I/O) devices.

Memory Management : An operating system assigns memory to various programs whenever required. It also frees the memory when it is not in use.

5. Software is the collection of programs that are stored and run on the computer hardware, and help users to work on the computer. Software is the part of a computer, which cannot be touched or seen.

Software is of two types : System software and Application software.

A. **1.** (c); **2.** (b); **3.** (b); **4.** (c); **5.** (c);

B. **1.** Portrait; **2.** Margin; **3.** Left; **4.** Indents; **5.** Paragraph;

C. **1.** F; **2.** F; **3.** F; **4.** F; **5.** F;

D. **1.** Step 1:Click on the File tab and select the Print option.

Step 2: Choose the printer from the Printer Properties drop-down list.

Step 3: Enter the number of copies in the Copies spin box.

Step 4: Under the Settings section, click on the arrow next to the Print All pages to choose any given option.

- ❖ Selecting the Print All Pages option prints the entire document.
- ❖ Selecting the Print Selection option prints only the selected text from the document.
- ❖ Selecting the Print Current Page prints only the selected page from your document.
- ❖ Choosing the Custom Print option prints the specified range of pages from the document.

Step 5: After selecting all the required options, click on the Print button.

2. Print preview refers to displaying a formatted document on the screen as it would appear when printed. It allows users to check the layout margins and overall appearance before physically printing the document. Print preview is more commonly called preview or previewing.

3. Margins refers to the amount of space which is left from the edges of a paper where the text actually begins to appear. MS Word allows us to set the margins on all four sides of the document i.e. top, bottom, left and right. Page margins can be set by following the steps :

Step 1: Select the Layout tab.

Step 2: Click on the Margins button to open a drop-down list.

Step 3: Click on any of the Margin options.

4. Indents are used to set the starting and ending points for lines in a paragraph. Indents basically draw the reader's attention.

There are four types of indents :

- ❖ Left indent sets the starting points of all lines of a paragraph.
- ❖ Right indent sets the end points of all lines of a paragraph.
- ❖ First line indent sets the starting point of the first line of a paragraph.
- ❖ Hanging indent sets the starting point of all the lines except the first line of a paragraph.

5.

Line Spacing	Paragraph Spacing
Line spacing is the vertical distance between successive lines of the text in a document. We can also increase or decrease the line spacing between a paragraph.	Paragraph spacing is the amount of space above or below a paragraph.

4 Styles in Word 2016

A. **1.** (b); **2.** (c); **3.** (c); **4.** (b); **5.** (c);

B. **1.** Symbols; **2.** SmartArt; **3.** Pictures; **4.** Shapes; **5.** WordArt;

C. **1.** T; **2.** F; **3.** T; **4.** F; **5.** F;

D. **1.** The Shapes is a drawing feature that helps you to add various shapes, like stars, banners, callouts, connectors etc., to your document. With the help of these shapes, you can draw attention and provide impact to your message.

2. To add symbols, follow the given steps :

Step 1: Place the cursor at the position where you want to insert the symbol.

Step 2 : Click the Insert tab.

Step 3 : Click Symbol  from the Symbols group. A list of symbols appears.

Step 4 : Select the desired symbol.

Step 5 : If you want to see more options, click More Symbols.... The Symbol dialog box appears.

Step 6 : Click the Symbol tab.

Step 7 : Select the desired font in the Font list. Then select the desired symbol.

Step 8 : Click the Insert button, then click Close.

3.

WordArt	SmartArt
1. A WordArt feature allows you to create special text effects.	SmartArt is a visual presentation of facts and information using different types of useful diagrams to our document.
2. Using WordArt, you can create decorative effects, such as curved wavy, shadowed, etc.	Smart Art diagrams change a list with bullets or numbers into a diagram of interconnected shapes.

4. SmartArt is a visual presentation of facts and information using different types of useful diagrams to our document. SmartArt diagrams change a list with bullets or numbers into a diagram of interconnected shapes.

To insert SmartArt, follow the given steps:

Step 1: Click the Insert tab and choose the SmartArt option in the Illustrations group.

Step 2: Choose any SmartArt Graphic option from list displayed.

Step 3: Add the text at the required place and also format the same using the design and format tab.

5. Pictures can add interest and impact to our Word documents. So, we need to insert a picture in a document.

A. **1.** (b); **2.** (c); **3.** (b); **4.** (b); **5.** (b);

B. **1.** Colour; **2.** Help; **3.** Placeholder; **4.** formatting; **5.** template;

C. **1.** T; **2.** T; **3.** F; **4.** T; **5.** F;

D. **1.** To change the view in PowerPoint, follow any of these steps :

- ❖ Click the required view button on the bottom right side of the status bar for the PowerPoint window.
- ❖ Click the View tab and then click the desired view button in the Presentation Views group.

2.
- ❖ Select the text with the formatting you want to copy.
- ❖ Click on the Format Painter button in the Clipboard group on the Home tab.
- ❖ The pointer changes to a Paintbrush icon  .Now hold down the mouse and drag over the text on which you want to apply the effect and release the mouse button.

3. The format background option of the customize group enables you to change the background colour of the slide.

4. The steps are :

Step 1: Click the File tab. The backstage view will appear.

Step 2: Select New. You can click Suggested searches to find templates or use the search bar. For example we selected Education link.

Step 3: This opens a gallery of online templates and themes. Select the desired template.

5. Inserting a text box

To insert a text box, follow these steps :

Step 1: Click on the Insert tab.

Step 2: Click on Text Box in the Text group.

Step 3: Click on the slide. A text box appears with the cursor inside it.

Step 4: Type your text in the text box. The size of text box will increase as you type.

A. **1.** (c); **2.** (b); **3.** (c); **4.** (c); **5.** (c);

B. **1.** Save; **2.** formula; **3.** right **4.** cell; **5.** spreadsheets;

C. **1.** T; **2.** T; **3.** T; **4.** F; **5.** T;

D. **1.** Follow these steps to save a workbook.

Step 1: Click on the File tab.

Step 2: Click on the Save option.

Step 3: The Save As pane appears on the screen. Clicks on the Browse option.

Step 4: The Save As dialog box appears. Select the drive and folder where you want to save the file.

Step 5: Type is the name for the file and click on the Save button.

The workbook gets saved.

2. Types of Data in Excel

We can enter text, values and formulas in Excel.

Types of Data	Description
Text	This includes some information, usually a combination of the letters of alphabet, such as Neha, Ramesh, and January.
Values	These include numbers and dates—*For example*, 236,838.87, and 17/02/2025.
Formulas	These include formulas to perform calculations.

3. The Formula Bar is located to the right of the Name Box. It displays the content you enter in a cell, such as text, numbers or formulas.

4. A cell is an intersection of a column and a row in a worksheet. Each sell is denoted with Cell Address. For example : B3 refers to the cell at the intersection of column B and row 3.

A. **1.** (b); **2.** (b); **3.** (b); **4.** (c); **5.** (c);

B. **1.** 480, 360; **2.** control; **3.** Paint editor; **4.** Backdrop; **5.** Cat;

C. **1.** F; **2.** F; **3.** F; **4.** T; **5.** T;

D. **1.** The Sound block provides different blocks to add music to our scratch project. It also provides music based on different instruments using the 

block. This block sets the type of instruments that a Sprite uses to play the note. There are 21 different in-built instruments from which we can select the desired one. We can also set the notes for the instrument for required number of beats. The notes are signified by numbers.

2. Alongside the Scripts tab, there is Costumes tab. If you want to change the appearance, size or the direction of the sprite, you can easily do that with this tab. There are four options below New Costumes.

Choose costume from Library : Used to add a costume from the costume library.

Paint new costume : Used to draw a new costume in the Paint editor.

Upload costume from file : Used to add another image of the sprite stored on your computer.

New costume from camera : Used to choose your photo or any other picture and add it.

3. Choose a Sprite from the Library: Click the **'Choose a Sprite'** button (looks like a cat) below the stage. Select your first sprite from the library. Repeat the same steps to add a second sprite.

Paint Your Own Sprite: Click **'Paint'** and draw your own sprite.

Upload a Sprite: Click **'Upload'** to add a picture from your computer.

Duplicate an Existing Sprite: Right-click a sprite and select **'Duplicate'** to create a copy.

4. Backdrop is the background of the stage area, and the

Backdrop option used to change it.

5. Scratch is a programming language, designed for the children to enhance their computing skills.

8 AI:The Brain Behind the Machines

A. **1.** Voice assistants like Siri and Alexa. Recommendation systems on Netflix and YouTube.

2. AI helps doctors analyse medical images, diagnose disease, and personalize treatment plans.

3. The future of AI holds exciting possibilities. Researchers are exploring ways to make AI more advanced and capable of solving complex problems, such as climate change and disease outbreaks, and improving education. However, as we develop AI, it's essential to consider ethical implications and ensure that it benefits everyone in society.

4. AI can learn from biased data, leading to unfair or discriminatory outcomes. For example, an AI system might make biased hiring decisions based on flawed data.

5. Advantages of AI

AI has many benefits, including:

1. Efficiency: AI can perform tasks faster than humans, saving time and resources.
2. Accuracy: AI can analyse large amounts of data without making mistakes, which is crucial in fields like healthcare and finance.
3. Availability: AI systems can operate 24/7 without needing breaks, making them reliable for various applications.
4. Personalization: AI can tailor recommendations and services to individual preferences, enhancing user experiences.

B. **1.** Artificial; **2.** 196; **3.** ELIZA; **4.** AI; **5.** IBM's Deep Blue;

C. **1.** F; **2.** T; **3.** F; **4.** T; **5.** F; **6.** T; **7.** T;

D. **1.** (b); **2.** (c); **3.** (b); **4.** (b); **5.** (c);

E. **1.** b; **2.** a; **3.** c; **4.** d; **5.** e;

9 Surfing Net

A. **1.** (c); **2.** (c); **3.** (c); **4.** (a); **5.** (c);

B. **1.** uppercase; **2.** Compose; **3.** websites; **4.** electronic mail; **5.** Internet;

C. **1.** F; **2.** F; **3.** F; **4.** T; **5.** T;

D. **1.** E-mail is considered as the most common way of communication at workplace. Hence, it is very important to know the following guidelines while using the email:

Subject Line : Use precise and brief subject line, which carries the main idea and the motive behind the e-mail.

Use Proper Salutation : Make sure your email includes a courteous greetings and closes with your name and signature.

Concise Message : Try to be precise and non-reptitive while you draft an email. The message should be to the point and must not deviate from the topic.

2. Step 1:Connect to the Internet and open any web browser.

Step 2: Type www.gmail.com in the address bar and press the ENTER key.

The Gmail window opens.

Step 3: Click on Create account. A new window opens, asking you to fill in your personal details.

Step 4: Fill in your first and last names.

Step 5: Choose a username that you wish to use.

Step 6: Create a password for your account and re-enter it in the Confirm your password field.

Step 7: Now, fill in the remaining details.

Step 8: Check the box next to 'I agree to the Google Terms of Service and Privacy Policy'.

Step 9: Click on the Next step button.

Step 10 : A welcome screen appears. Click on Continue to Gmail. It will take you to the Inbox of your email account. Inbox is a folder where emails that are received by you are held.

3. E-mail or electronic mail is a message sent from one computer to another with the help of the Internet. You can send text, pictures, audio and videos as attachments along with your email.

4. The requirements for getting an internet connection are :

- ❖ A good quality, high speed computer
- ❖ MODEM
- ❖ A telephone line/cable.
- ❖ An account with any one Internet Service Provider (ISP)
- ❖ Software for accessing to internet.

5. People find the internet very useful for many reasons. Some of them are as follows :

- ❖ You can send and receive mails to and from your friends and relatives.
- ❖ You can play games with people on the other side of the world.
- ❖ You can chat with many people at the same time.
- ❖ You can do shopping on internet (e-shopping).
- ❖ You can do banking on internet (e-banking).