

Teacher's Manual

GRADE

4

PREPARATORY
STAGE

Tanqiri AI

Computer



MASTERMIND

Carvaan Computer-4

1

Computer Memory and Storage Devices

- A. 1. (c); 2. (a); 3. (c); 4. (c); 5. (b);
- B. 1. pen drive; 2. Hard disk; 3. internal; 4. bit; 5. 1024;
- C. 1. T; 2. F; 3. T; 4. T; 5. F;
- D. 1. Multimedia Card : Multimedia card is a flash memory card used as a storage medium for portable devices like mobiles, digital cameras and music players in a form that can easily be removed for access by a computer. These devices transfer image and music files into a computer using multimedia card reader which can be connected to a computer through a USB cable. Most of the laptops come with in-built card readers.
2. USB drive or Flash drive : A USB drive, popularly known as the pen drive or thumb drive, has emerged at the most popular data backup device. It is used for copying and moving data from one computer to another. It is a small, light-weight, removable and re-writable drive. It is a plug and play device that plugs into a computer's USB port. It comes in various storage capacities from 4 GB to 32 GB. It is also a highly durable device and keeps the data safe and secure. We can rewrite data in it any number of times.

3.

RAM	ROM
1. RAM stands of "Random Access Memory"	ROM stands of "Read Only memory"
2. RAM is a volatile memory that stores the data temporarily.	ROM is a non volatile memory that store the data permanently.
3. The data is lost when a computer is switched off.	The data can only be read from the ROM and is not erasable

4. A computer works with only two digits– 0 and 1. The data input into the computer are first converted into 0s and 1s for the computer to understand. These digits are called Binary digits or bits. A bit is the smallest chunk of information that a computer can work with.

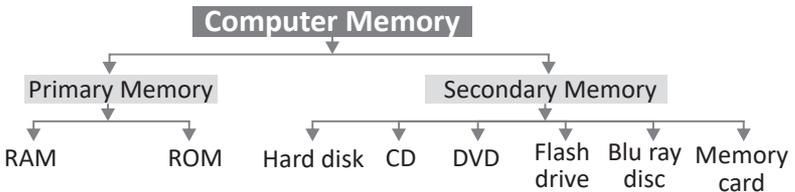
A computer language represented in bits is called a binary language.

The memory of a computer is represented in bytes, where 1 byte = 8 bits. A byte is denoted by B.

So, 1 B = 8 bits

5. Computer memory can be of two types :

- ❖ Primary Memory or Main Memory
- ❖ Secondary Memory



2

Repeat Command and Procedures in Logo

- A. 1. (c); 2. (a); 3. (b); 4. (a); 5. (a);
- B. 1. .LGO; 2. END; 3. TO; 4. input box; 5. polygon;
- C. 1. T; 2. F; 3. T; 4. F; 5. F;
- D. 1. To delete a Procedure in LOGO, follow these steps :
- Step 1: Click on the File menu of the MSW Logo Screen.
 - Step 2: Click on the Erase option. The Erase procedure window opens.
 - Step 3: Select the Procedure to be deleted and click on the OK button.
2. Loading a procedure is like opening a saved file. You can execute a procedure only after you load it.
- To load a procedure, follow these steps:
- Step 1: Click on File.
 - Step 2 :Click on the Load option.

Step 3 : Select the location from which your file is to be loaded.

Step 4 : Click on Open.

You can also load a procedure by typing LOAD followed by double inverted quotes and the name of the procedure. Then press the ENTER key, for example; LOAD "SQUARE".

3. To write a procedure using Input Box, follow the steps given below:

Step 1: Click in the Input box.

Step 2: Type 'TO' followed by a single space and the name of the procedure. For example; TO SQUARE. Press Enter key.

Step 3: To Mode (Cancel to End) Input box will appear. Type the set of primitives one after other for making a square. Press the Enter key after each line.

FD 100

RT 90

FD 100

RT 90

FD 100

RT 90

FD 100

RT 90

Step 4: When all the primitives are entered, type in END and press the Enter key. The procedure for SQUARE will be defined.

Step 5 : To execute the procedure, type the procedure name SQUARE in the Input Box. Press the Enter key.

The square will appear on the MSWLogo Screen .

4. (a) The REPEAT command tells the turtle to repeat the given command a certain number of times. For shapes, such as, a square, where the same command is repeated for all the sides, the REPEAT command can be useful.

(b) Making polygons using the REPEAT Command

Any closed figure with three or more sides is called a polygon. A polygon in which all the sides are of equal length

is called a regular polygon. The REPEAT command can be used to draw regular polygons.

The REPEAT command for a polygon with n number of sides is written as follows:

REPEAT n [FD (number of steps) RT 360/n]

5. A LOGO procedure is a set of LOGO commands that are executed one after the other to carry out a specific task.

A LOGO procedure is divided into three parts–

1. Title of the procedure.
2. Set of instructions.
3. End line

3

Using Windows 10 Operating System

- A. 1. (c); 2. (c); 3. (b); 4. (b);
- B. 1. folder; 2. Desktop; 3. Microsoft Edge; 4. transparent; 5. Software;
- C. 1. F; 2. F; 3. F; 4. T; 5. T;
- D. 1. ❖ Click on the Start button  and select All Apps. Select the Word 2016 program.
- ❖ Drag the icon to the Desktop.
 - ❖ A shortcut icon of Word 2016  appears on the desktop with a jump arrow in its lower left corner.
 - ❖ Double-click on the shortcut icon to open the application directly.

2.

Files	Folders
1. It is a collection of related information stored together on some storage device.	A folder can hold other folders as well.
2. As we keep important papers in a file, likewise any information in a computer is saved in the form of a file.	As we keep all our files in a file cabinet, similarly a folder in a computer is like a cabinet where we keep relevant files.

3. Right-click on the blank area of the desktop.
 - ❖ A shortcut menu appears.
 - ❖ Place the pointer on the New option. A list of sub-options appears, which is called Cascading Menu.
 - ❖ Click on the Folder option. A new folder icon will be displayed on the desktop with its default name i.e, 'New Folder'.
 - ❖ Type a name for the folder and press the Enter key.
4. This PC icon replaces the My Computer icon in Windows 8. It contains all the drives and folders.

5. Attractive and Easy To Use

Windows 10 has a very attractive transparent look with blue highlighting features. It has a complete set of new pictures, themes, tiles, and icons. The use of graphics makes it quite interactive. It works the way we want and makes new things possible.

Improved Start Menu

The new Start menu of Windows 10 gives you quick access to Apps and services. In the left pane, you can find File Explorer, Settings, and a list of the most used Apps, Power option etc. The 'All Apps' option at the bottom of the left pane displays all the Apps and programs. In the right pane, live tiles are displayed which consist of various Apps.

- A. 1. (c); 2. (b); 3. (c); 4. (a); 5. (b);
- B. 1. Undo; 2. copy; 3. double-click; 4. editing; 5. Ctrl + A;
- C. 1. T; 2. F; 3. T; 4. T; 5. F;
- D. 1. Thesaurus helps us to improve our vocabulary by providing a list of synonyms (words with similar meaning), and antonyms (words with opposite meaning) for any word.
2. The Undo command is used to reverse the last command. The Redo command is used to reverse the Undo action.
3. We correct a spelling error using thesaurus.

Follow these steps to use Thesaurus :

- ❖ Select the word for which you want to find synonyms or antonyms.
 - ❖ Click on the Review tab. Select the Thesaurus option in the Proofing group.
 - ❖ The Thesaurus tasks pane opens, displaying the synonyms and antonyms.
 - ❖ Move the mouse pointer to the suitable word, click on the drop-down button present on its right side and select the Insert option. The existing word will be replaced with the selected one.
4. For coping (or moving) and pasting text, follow these steps :
- Step 1: Select the text to be copied.
- Step 2: Click the Home tab (if it is not already selected).
- Step 3: In the Clipboard group, click Copy (or Cut).
- Step 4: Position the cursor at the location where you want to paste the text.
- Step 5: In the Clipboard group, click Paste.
5. The selection bar is the space between the left edge of the page and where the text begins.
- (a) A line of text Click the selection bar to the left of the line.
- (b) A paragraph Double-click the selection bar or triple-click anywhere in the paragraph.
- (c) An entire document Triple-click the selection bar or press Ctrl + A.

5

Formatting in MS Word 2016

- A. 1. (c); 2. (b); 3. (b); 4. (b); 5. (b);
- B. 1. five; 2. Paragraph; 3. Formatting; 4. Font; 5. Font color;
- C. 1. T; 2. T; 3. F; 4. F; 5. T;
- D. 1. Format Painter is used when you want to copy formatting from one item to another. For graphics, the format painter.

Works best with drawing objects, such as Autoshapes.

2. (a) The way in which you place the text in your document is called alignment.

There are four types of alignment.

1. Align Text left
2. Align Text Right
3. Center
4. Justify

3. The different change will option available in MS Word 2016 are follows :

- (a) ❖ Changing font and its size ❖ Highlighting certain words
- ❖ Adjusting line spacing
 - ❖ Setting margins and tabs
 - ❖ Aligning text on a page
 - ❖ Creating bulleted/ numbered lists
 - ❖ Changing text caste
 - ❖ Applying border
 - ❖ Changing text styles and colour

(b) Changing Font Colour

We can apply different colours to the text. The steps to colour the text are :

Step 1: Select the text to change the font colour.

Step 2: Click the Home tab.

Step 3: Click the drop down list arrow on Font Color button

 in Font group. colour palette appears.

Step 4: Choose the desired colour from the palette and click it to apply.

Bold, Italic and Underline

These features are used to emphasize and draw attention towards some important information:

Step 1: Select the text.

Step 2: Click on the Bold button  in the Font group. The text will become bold (thick).

Step 3: Click on the Italic button  after selecting the text. The text appears slanting to the right.

Step 4: Click on the Underline button  to place a line under the text.

Step 5: Click on the Strikethrough button  to cross out the text by drawing a line through it.

4. (a) Font is a set of letters, numbers of symbols with the same style and size.

(b) To change the font of the text and its size, follow the given steps :

Step 1: Select the text to change the font .

Step 2: Click the Home tab.

Step 3: Click the drop-down list arrow  on the Font button  from the Font group.

Step 4: Choose the desired font from the list and click it to apply.

Step 5: Now click the drop down list arrow on the Font Size button  in the Font group.

Step 6: Choose the desired Font Size from the list and click it to apply.

5. Formatting means changing the appearance of document in order to make it attractive.

6

Introduction to MS PowerPoint 2016

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

B. 1. .pptx; 2. F5; 3. Placeholder; 4. Title bar; 5. slides;

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

D. 1. Follow these steps to save a presentation :

Step 1: Click on the Save button  present on the Quick Access Toolbar or select the File tab > Save option. Click on Browse button. The Save As dialog box appears.

Step 2: Specify the name, 'My Presentation' in the File name text box. Click on the Save button.

Step 3: The presentation will be saved with the name My Presentation and with an extension. pptx.

2. Microsoft PowerPoint provides the option of combining all the slides of a presentation into a slide show. It is just like the pictures in a photo album. It displays all the slides in presentation one by one on the screen.

3. Whenever we add a new slide in our presentation, we must select its layout first.
 - ❖ Open an existing presentation, e.g., My Presentation.
 - ❖ Click on the drop-down arrow next to the New Slide button in the Slides group on the Home tab.
 - ❖ A list of available slide layouts will be displayed.
 - ❖ Click on the desired layout.
 - ❖ PowerPoint will add a new slide, with the selected layout in the center of the PowerPoint window. The new slide can also be seen in the 'Slides tab' on the left.
4. A presentation is helpful to us in many ways :
 - ❖ Using PowerPoint, we can make projects on any topic.
 - ❖ Teachers can use presentations to prepare their lesson plans.
 - ❖ People of the business world can use it to present information about their products or company in seminars and meetings.
5. Placeholder is the dotted rectangular box where text, pictures, and graphs are placed.

7

The Magic of Artificial Intelligence (AI)

- A. 1. (b); 2. (b); 3. (b); 4. (c); 5. (b);
- B. 1. T; 2. F; 3. T; 4. T; 5. F;
- D. 1. Artificial Intelligence; 2. Narrow; 3. recommend; 4. diseases; 5. smarter;
- D. 1. AI helps some cars drive by themselves. These cars have special computers that make decisions, like when to stop or turn.
 2. Recommendation system like YouTube suggest videos using AI based on what you watched before.
 3. Narrow AI is a type of AI that is good at doing one specific task. It can do that task very well, but it cannot do anything else. It is like a robot that only knows how to clean or a computer that only knows how to play chess.

General AI is a type of AI that can think and learn like a human. It can do many different things, just like we can. It can solve problems, make decisions, and even learn new things by itself.

4. Doctors use AI to look at X-rays and find diseases.
5. AI is very smart, but it is not exactly like a human brain. It can do things faster and remember more, but it only knows what people teach t. It cannot think or feel emotions like we do. That’s why humans and AI work together.

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

8

The Internet Web Browser

- A. 1. (c); 2. (b); 3. (a); 4. (b); 5. (b);
- B. 1. browser; 2. www; 3. bps; 4. e-commerce; 5. Internet;
- C. 1. T; 2. T; 3. F; 4. T; 5. F;

D. 1.

Web Page	Home Page
1. A Webpage is any page on the Internet which links to other pages. 2. A web page is a document that is suitable for the world wide web and web browsers.	A homepage is the “Front” page for a website, typically named index. htm or index. html. The page loaded by default when the browser searches for a site.

2.

Web Browser	Search Engine
1. It is a software application or program that allow you to access the entire information available on the web. Some web browsers are Mozilla Firebox, Opera etc.	A search engine is a software system that searches the web pages for information on a particular topic. Some search engines are Google, Yahoo, and Bing. etc.

3. Some basic requirements of Internet connection–
 1. Modem
 2. An Internet Connection
 3. Telephone Line
 4. Web Browser
4. Some uses of the Internet are a follows :

- (i) You can search and access any information based on any topic on the Internet.
 - (ii) With the internet, communication is a lot easier. You can send emails, do video conferencing, chat with your friends on social networking sites, and so on.
 - (iii) The internet is being used by various companies to advertise and sell their products. You can buy and sell various products over the Internet. This type of internet activity is called e-commerce.
 - (iv) You can use the Internet for your entertainment as well for various activities, such as playing online games, watching movies, and listening to music.
 - (v) The Internet can be used for education as well. There are several online courses available on the Internet.
 - (vi) Internet banking is one of the most important aspects of the Internet. It lets you pay bills, operate your bank accounts from anywhere, book railways and air tickets, and do various other transactions.
5. The term 'Internet' means an international network of computers.

Google Docs

- A.** 1. (b); 2. (b); 3. (c); 4. (b); 5. (a)
- B.** 1. T; 2. F; 3. T; 4. F; 5. T
- C.** 1. Google workspace; 2. share; 3. Font; 4. Google Drive
5. collaboratively
- D.** 1. Some Additional Features in Google Docs.
Select All Matching text, Header and footer, Document Outline, Research Tool, Voice Typing, Share Document with Others.
- 2. Once you are done with editing, you can share your document with others by clicking on the share  button present on the upper right corner of the screen.
- ❖ Open the document and click on the Share button presented on the right side of the ribbon.

- ❖ The share with others dialog box appears.
 - ❖ Type the email addresses of the people with whom you want to collaborate on the document.
3. This option is selected by default which allows multiple people to work on the same project in real time. When you share a document with people, they receive an email. It contains the link to the shared document, which allows them to edit it along with other users. Each editor who is working in the document will be visible as icons at the top right corner of the screen.
 4. Google Docs automatically saves your work in Google Drive.
 5. To add an image to a Google Docs document.
 - Step 1. Open Google Docs and your document.
 - Step 2. Click Insert > Image.
 - Step 3. Choose an option (upload, Drive, Web, Camera, etc.)
 - Step 4. Select the image and insert it into the document.
- E. 1. (e); 2. (c); 3. (a); 4. (b); 5. (d)

Periodic Test Paper-1

- A. 1. (c); 2. (c); 3. (c); 4. (c); 5. (a); 6. (b)
- B. 1. Home tab; 2. ctrl + Z; 3. click; 4. folder; 5. pendrive; 6. 1024;
- C. 1. T; 2. F; 3. T; 4. T; 5. T; 6. F
- D. 1. Format Painter option help us to apply the same formatting features to some portion of the text. We can copy the formatting features.
 2. Formatting means changing the appearance of a document in order to make it attractive.
 3. For coping (or moving) and pasting text, follow these steps :
 - Step 1: Select the text to be copied.
 - Step 2: Click the Home tab (if it is not already selected).
 - Step 3: In the Clipboard group, click Copy (or Cut).
 - Step 4: Position the cursor at the location where you want to paste the text.

Step 5: In the Clipboard group, click paste.

4. Creating a Folder

- ❖ Right click on the blank area of the desktop.
- ❖ A short menu appears.
- ❖ Place the pointer on the New option. A list of Sub-option appears which is called cascading menu.
- ❖ Click the folder option. A new Folder icon will be displaced on the desktop with its default name i.e. 'New Folder'.
- ❖ Type a name for the folder and press the enter key.

5. Two features of window 10.

1. It Supports multiple desktop of attractive and easy to use.
2. Searching made easier with tool cortana.

6.

RAM	ROM
1. RAM stands of "Random Access Memory" 2. RAM is a volatile memory that stores the data temporarily. 3. The data is lost when a computer is switched off.	ROM stands of "Read Only memory" ROM is a non volatile memory that store the data permanently. The data can only be read from the ROM and is not erasable

E. Do it yourself.

F. Do it yourself.

Periodic Test Paper-2

A. 1. (a); 2. (a); 3. (b); 4. (b); 5. (c); 6. (a)

B. 1. Logo; 2. bps; 3. e-commerce; 4. Pen; 5. Scratch; 6. Title bar;

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

D. 1. To write a procedure using Input Box, follow the steps given below:

Step 1 : Click in the Input box.

Step 2 : Type 'TO' followed by a single space and the name of

the procedure. *For example*; TO SQUARE. Press Enter key.

Step 3 : The To Mode (Cancel to End) Input box will appear. Type the set of primitives one after other for making a square. Press the Enter key after each line.

FD 100

RT 90

FD 100

RT 90

FD 100

RT 90

FD 100

RT 90

Step 4 : When all the primitives are entered, type in END and press the Enter key. The procedure for SQUARE will be defined.

Step 5 : To execute the procedure, type the procedure name SQUARE in the Input Box. Press the Enter key.

The square will appear on the MSWLogo Screen.

2. Basic Requirement for an Internet Connection.

1. Modem 2. An Internet Connection 3. Telephone Lines
4. Web Browser 5. Software

3. The Word 'Internet' is a Combination of two words 'inter+net' meaning network of networks. It is a word wide system of computer network in which users working on computers can get information from any other computer.

4. A sprite is a graphic element that performs different functions based on the commands.

5. Microsoft PowerPoint Provides the options of Combining all the Slides of a Presentation into a Slide Show. It is first like the pictures in a photo album.

6. It is the dotted Rectangular box where text Picture, and graphs are placed.

E. Do it yourself.