

Eliana Books

COMPUTER TECHNOLOGY

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Help Kit-6 to 8



Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. iii b. ii c. i d. iv e. ii

2. Fill in the blanks using words from the help box :

- Ans. a. The term MICR stands for **Magnetic Ink Characters Reader**.
 b. The **ALU** of the CPU performs all the arithmetic and logical computations within a computer.
 c. A group of 8 bits is called a **Byte**.
 d. A group of 4 bits is called a **Nibble**.
 e. **RAM** and **ROM** are the primary memory of the computer.
 f. **Output** devices are used for getting information from a computer.
 g. A **Plotter** is an output device used for printing high-quality graphics.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. F b. T c. F d. T e. F f. F g. T

4. Match the following columns correctly :

- Ans. a. Abacus → i. Are the most powerful computers in all types of computers.
 b. Pascaline → ii. Were used in the first-generation computers.
 c. Vacuum tubes → iii. Were used as the main component in third-generation computers.
 d. Transistors → iv. Helps to print high quality graphics.
 e. Supercomputers → v. Was invented by Blaise Pascal in 1641.
 f. MICR → vi. Was the first calculating device made in China.
 g. Plotter → vii. Is used to read special characters printed on cheques.

5. Write your answer in one word :

Ans. a. Mainframe Computer b. Super Computer
 c. Control Unit d. RAM
 e. MHZ or Ghz

6. Classify the following as an input, output or a storage device :

Ans. a. Plotter-**Output** b. Speakers-**Output**
 c. Bar code reader-**Input** d. Compact Disc-**Storage**
 e. MICR-**Input** f. Scanner-**Input**
 g. Microphone-**Input** h. Light pen-**Input**
 i. Flash Drive-**Storage**

7. Answer these questions :

Ans. a. A Computer is an electronic device that works on the principal of Input-Process-Output (IPO) cycle. It

receives inputs from the user, stores it in its memory, processes it with the help of its processing device and gives us the required output.

1. Microcomputers 2. Minicomputers
 3. Mainframe computers 4. Supercomputers
- b. Data is accepted by a computer through the input devices attached to it. The standard input device is a keyboard. Examples of other input devices are Joystick, Mouse, Web camera, Magnetic Ink Character Reader, Optical Mark Reader, Optical Character Reader, Light Pen, Touchscreen, Smart Card Reader, Digital Reader, etc.
- c. First Generation Computers (1940-1956)
 Second Generation Computers (1956-1963)
 Third Generation Computers (1964-1971)
 Fourth Generation Computers (1971-Present)
 Fifth Generation Computers (Present & Beyond)

d. The function of the components of Central Processing Unit are : **Arithmetic Logic Unit (ALU)** : The ALU performs all the arithmetic and logical operations within a computer. This part provides the arithmetic and decision making capability to a computer.

Control Unit (CU) : The CU controls and guides the interpretation, flow and manipulation of all data and information. The CU sends control signals until the required operations are done properly by the ALU and memory.

Another important function of CU is program execution, that is, carrying out all the instructions stored in the program. The Control Unit even controls the flow of data from input devices to memory and from memory to output devices.

Memory Unit (MU) : MU is that part of the computer where the data is stored and is accessible to CPU.

e. Memory is used to store the computer data and programs.

RAM	ROM
1. RAM stands for Random Access Memory.	1. ROM stands for Read Only Memory.
2. It is a temporary memory.	2. It is a permanent memory.
3. It is volatile in nature, that is, the information stored in RAM is designed to clear when the computer is not on.	3. It is a non-volatile memory, that is, the information stored in ROM is not cleared when the computer is not on.
4. It is the main internal storage area that a computer uses to run programs and store data. It is also called read/write memory.	4. It is a built-in computer memory that can be read by a computer but cannot be modified. It is a memory unit that can only be read from.

- f. Output devices are used for getting information from a computer. For example, Visual Display Unit (VDU) or monitor is an output device that displays the information on the screen.
- g. Software is a set of programs that runs a computer system. Computer software is stored and executed with the help of computer hardware. System software is a program that manages and supports the computer resources and operations of a computer system while it executes various tasks such as processing of data and information, controlling the hardware components and allowing users to use the application software.
- Application software is a set of programs necessary to carry out operations for a specified application. These are the programs written by programmers to enable computers to perform a specific task.

Find out the names of the computer peripherals and the types of computer in the following word-grid. One has been done for you.

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

2

About Operating System

Test Your Progress

- Tick (✓) the correct answer :
 Ans. a. iii b. iv c. ii d. i e. ii
- Fill in the blanks using words from the help box :
 Ans. a. The **Operating system** provides an interface between the user and the computer.
 b. **Windows 10** is the latest version of the Windows operating system.
 c. **Booting** is a process that starts the operating system when the user turns the computer ON.
 d. The term BIOS stands for **Basic** Input-Output System.
 e. **Memory** management is the process of managing memory for every task to be performed.
 f. Windows operating system provides **GUI** based user interface.
- Write 'T' for true and 'F' for false for the following statements :
 Ans. a. F b. T c. T d. T e. T f. T
- Match the following columns correctly :
 Ans. a. MS Windows 10 — iii. Is the latest version of Windows operating system.
 b. UNIX — ii. Is a CUI-based operating system.
 c. Android — vii. Was developed to provide an upgrade to
 d. Mac O/S — i. Is a famous operating system developed by Apple Inc.
 e. MS-DOS — v. Is a multi-user operating system.
 f. Windows 8.1 — vi. Is a famous operating system meant for smartphones.
 g. Palm OS — iv. Is a single-user, single-task operating system.



Windows 8 operating system.

5. Answer these questions :

- Ans. a. An Operating system is the system software that manages all the tasks of a computer. It is the backbone of the computer and works as a middleman between the user and the computer.
- Some of the commonly used operating systems are UNIX, Linux, MacOS, MS-DOS, MS Windows, Ubuntu and Android. MS Windows is the most popular operating system for microcomputers.
- b. It manages and controls the hardware and software resources of the computer.
- It provides a platform for other software to run on the computer.
- It provides an interface between the user and the computer.
- c. Booting is a process that starts the operating system when the user turns on a computer system.
- d. **Warm boot** : It is pressing the Restart button while the computer is already on.
Cold boot : It is pressing the power switch when the computer is switched off.
- e. **Processor Management**—Processor management ensures that all applications and processes get the appropriate amount of the time from the processor so that it can function properly.
- Memory Management**—Memory management is the process of ensuring that each process has the amount of memory needed to execute the task so that processes do not steal memory from each other. Another part of memory management is managing each type of memory so that it is used properly.
- f. Single-user operating system have only one user but may allow multiple programs to run at the same time. A multi-user operating system allows multiple users to access a computer system at the same time.



- g. The user interface aspect of the operating system manages the interaction between the user and computer. Many operating systems use graphical user interfaces, which means that they use images and

icons to communicate with the user. The operating system once again plays the role of interpreter to communicate with both the user and the computer in languages that they both understand.

3

Working with Windows 8 Start Screen

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. ii b. iv c. ii d. i

2. Fill in the blanks using words from the help box :

- Ans. a. In a touchscreen device, You can **tap** a photo to view it in full-screen.
 b. The **Music** app helps to play stored music as well as to buy latest music online.
 c. You can press **Win + I** keys together to open the Charms bar's settings screen.
 d. You need to enter a **Password** to connect to a security-enabled wireless connection.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. F b. F c. F d. F

4. Match the following columns correctly :

- Ans. a. Change camera — i. Helps you to select all photos in a folder.
 b. Video mode — ii. Allows you to import photos from another location.
 c. Select all — iii. Helps you to toggle between back and front-facing cameras.
 d. Slide show — iv. Lets you shot videos rather than still shots.
 e. Import — v. Lets you view a slide show of the current folder.

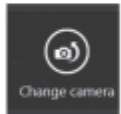
5. Answer these questions :

- Ans. a. Windows 8 is a popular touch-optimized operating system designed to run on personal computers such as desktop and laptop computers and touchscreen

devices like tablet PCs and smartphones. It is one of the latest versions of windows operating system developed by Microsoft Corporation, USA.

- b. The Start screen contains a grid of rectangular tiles. Some of the tiles are called 'Live tiles' because they show you the current updates. Components of the Start screen app/hotspot/charm bar

- c. **Change camera** : Meant for laptops and tablets with front and back-facing cameras, this button lets you toggle between the two.



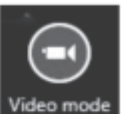
Camera options : Clicking this icon brings the pop-up menu similar to the one shown in the figure. Here, you can choose your camera's resolution and toggle between different microphones attached to your computer. If you see More Options at the pop-up menu's bottom edge, choose it to tweak even more options offered by your particular camera.



Timer : Helpful for setting up shots, this tells the camera to snap that photo three seconds after you click the screen. (When you click the icon, it turns white, letting you know it's turned on.)



Video mode : Click this icon to shoot videos rather than still shots. Clicking the screen toggles the video on and off. (The video icon turns white when activated, so you know the camera is in video mode.) While recording, a small timer appears in the screen's bottom-right corner, letting you know the video's current length.



- d. It is an online store font Multi player

4

MS Word 2010

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. iii b. iii c. ii

2. Fill in the blanks using words given the help box :

- Ans. a. The **Table** command button provides you many options to create a table.
 b. The intersection of a row and a column creates a **Cell**.
 c. To combine two or more cells you can use the **Merge** feature.
 d. **Header** is a text that appears at the top of every page in a document.
 e. **Footer** is a text that appears at the bottom of every page in a document.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. T c. T d. T e. T

4. Match the following columns correctly :

- Ans. a. Merge cells — iii. This option helps you to combine two or more cells into a cell.
 b. Split cells — iv. This option helps you to split a cell into two or more cells.
 c. Quick Tables — v. This option provides you predefined templates for a table.

- d. Draw Table i. This option helps you to draw a table according to your requirements.
- e. Excel Spreadsheet ii. This option helps you to insert an Excel spreadsheet in the document.

5. Answer these questions :

- Ans.** a. A Table is an object made up of horizontal rows and vertical columns. The intersection of a row and a column is called a cell. You can enter any type of information, in the form of text or graphics in a cell. Follow these steps to create a table by using the Insert Table option :
- Step 1** : Place the cursor where you want to insert a table.
 - Step 2** : Click on the Insert tab.
 - Step 3** : Click on the Table button in the Tables group.
 - Step 4** : Click on the Insert Table option. The Insert Table dialog box appears.
 - Step 5** : Specify the number of rows and columns in the dialog box.

- Step 6** : Click on OK to insert the table.
- b. This option is used for creating complex tables that may have cells of different heights or carrying a number of columns in one row, etc.
- c. **Deleting Cells, Columns or Rows**
Follow these steps to delete cells, columns or rows :
 - Step 1** : Select the cell, column or row that you want to delete.
 - Step 2** : Click on the Delete option in the Rows & Columns group on Table Tools Layout tab. You will get a delete drop-down list.
 - Step 3** : Select the appropriate option. If you choose Delete Cells, a dialog box appears. Use this to decide what you want to do with the other cells in the row or column.
 - Step 4** : Choose the appropriate option and then click on OK.
- d. Header is the text that appears at the top of every page in a document. Footer is the text that appears at the bottom of every page in a document.
- e. The Footnote is given at the end of a page and the Endnote is given at the end of the document.

5

MS Power Point 2010

Test Your Progress

1. Tick (✓) the correct answer :

- Ans.** a. ii b. i c. ii d. i e. ii













2. Fill in the blanks using words from the help box :

- Ans.** a. To save a presentation file you can choose **Save** option from the backstage view.
- b. To delete a slide first select it in the slides/outline pane and then press the **Delete** key.
- c. To move text from one slide to another you can choose the **Cut-Paste** commands.
- d. To copy text from one slide to another you can choose the **Copy-Paste** commands.
- e. **Clipart** are ready-made images that you can insert in your slides.
- f. To start Slide Show of a presentation you can use the **SlideShow** tab.

3. Write 'T' for true and 'F' for false for the following statements :

- Ans.** a. F b. F c. T d. T e. F f. T

4. Match the following icons to their names correctly :

- | | |
|--|---|
| Ans.  New Slide |  Insert SmartArt Graphic |
|  My Templates |  Title Slide |
|  Insert Media Clip |  Text Box |
|  Insert Picture from File |  From Beginning |
|  Insert Table |  PowerPoint |
|  ClipArt |  Insert Chart |

5. Answer these questions :

- Ans.** a. As you know MS PowerPoint 2010 is a powerful presentation-making software. It is a part of MS Office Suite 2010 developed by Microsoft Corporation, USA. PowerPoint 2010 helps us to present our views and ideas to a large audience with an effective way. The Ribbon, Quick Access toolbar and Backstage view.
- b. **Saving a Presentation**
Follow these steps to save a presentation in PowerPoint 2010 :
Step 1 : Click on the File tab.
Step 2 : Select 'Save' option in the backstage view.
 A 'Save As' dialog box appears.
Step 3 : Choose a drive to save your file in it.
Step 4 : In the File name : box, type a name for your presentation.
Step 5 : Click on the Save button.
 The presentation will get saved.
- c. Files created and saved in PowerPoint are called Presentations. A presentation contains several electronic pages called Slides. Every PowerPoint presentation is composed of a series of slides. Slides contain placeholders, which are areas on the slide that are enclosed by dotted borders. Placeholders can contain text and objects like pictures, charts, clipart, smartart, table and more.
- d. The placeholders are arranged in different layouts that can be applied to existing slides, or chosen when

you insert a new slide.

Changing the Slide Layout

Follow these steps to change the layout of a slide :

Step 1 : Select the slide of which you want to change the slide layout.

Step 2 : Click the Layout command in the Slides group on the Home tab. A menu with many layouts will appear.

Step 3 : Choose a layout from the menu. The slide layout will be changed accordingly.

- e. Clipart is a collection of images which are automatically installed on the computer.
- f. Normal view, Reading view, Slide show view, Slide Sorter view.

6

MS Excel 2010

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. iii b. ii c. i d. iii e. iv

2. Fill in the blanks using words from the help box :

- Ans. a. A spreadsheet is also known as a **Worksheet**.
b. Cell referencing is mainly of **Two** types.
c. **Sorting** refers to arrange data systematically.
d. **Today** function shows the current system date.
e. A formula must be started with **Equal to** sign.
f. We must use \$ sign in absolute reference.
g. The **Textual** data can be arranged alphabetically in a worksheet.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. F b. F c. F d. T e. T f. T g. T

4. Answer these questions :

- Ans. a. MS Excel 2010 is a popular spreadsheet application software. A spreadsheet, also known as worksheet, consists of a grid of rows and columns.
Four components of Excel 2010 Window are—Name box, Active cell, Formula bar, Sheet tabs.
b. A Formula in a worksheet is a mathematical equation or expression that is used to calculate a value.
c. To enter formulae that perform basic mathematical operations such as addition, subtraction,

multiplication and division, you can use a vast library of built-in worksheet Functions in Excel to do much more.

Function	Purpose	Example
SUM	To find the sum of the numbers.	=SUM (A1:A50)
COUNT	To count the number of cells containing numeric data	=COUNT(B1:K20)
TODAY	To display the current system date.	=TODAY()

- e. When you copy a formula to a cell or a range of cells, the row/column reference gets automatically adjusted depending upon the row/column you are copying the formula to. This feature of Excel is called Cell Referencing.
- f. Sorting refers to arrange data in a particular order. MS Excel allows us to arrange textual data alphabetically and the numerical data in ascending or descending order.
- g. Relative Cell Referencing in which the cell reference changes as per the column or row you are copying to. In Absolute Cell Referencing, the cell reference does not change even when you copy the formula horizontally or vertically.

7

Computer Virus

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. ii b. iv c. iv d. iii

2. Fill in the blanks using words from the help box :

- Ans. a. A computer **Virus** is a harmful program that can destroy data stored in a computer.
b. Viruses can spread through any portable storage medium like **Pen drive**.
c. A **Trojan** allows malicious intruders to access and alter your files.
d. **Heuristic** is a way used in Antivirus software to locate and remove computer viruses.
e. You can **Scan** your computer system with an Antivirus software to prevent and remove viruses from it.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. F b. T c. T d. F e. T

4. Answer these questions :

- Ans. a. A computer virus is a program or a piece of code that is loaded onto your computer without your knowledge.
b. The symptoms of a computer infected with viruses are :
- Strange sounds or beeping noises may come from the computer's speakers.
 - Computer programs may take longer to boot/load than normal.
 - New files or folders may keep appearing on the system.
 - The hard disk drive constantly runs out of free space.
 - Program size keeps changing.

- Programs act erratically.
 - Strange graphics are displayed on the computer monitor.
- c. Program Virus / Boot Virus
d. **E-mail Virus** : These viruses use e-mail messages to

spread. An e-mail virus can automatically forward itself to thousands of people, depending on whose e-mail address it attached.

- e. Quick Heal, AVG, Norton

8

Browsing the Internet

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. ii b. iii c. i d. i

2. Fill in the blanks using words from the help box :

- Ans. a. **Internet** is the biggest network of computers throughout the world.
b. You need a **Web browser** software to access information available on the Internet.
c. A **Search engine** is a special website that helps you to search for information about a topic.
d. You can click on the **Inbox** folder to read new incoming e-mails.
e. To log in to your e-mail account you need to type user ID and **Password** in their respective boxes.
f. When you delete an e-mail, it goes to the **Trash** folder.
g. You should not give your **Personal** details on the Internet.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. F b. T c. T d. T e. T f. F g. F

4. Match the following columns correctly :

- | | |
|------------------|---|
| Ans. a. Internet | iii. It is the biggest network of computers throughout the world. |
| b. ARPANET | iv. It stands for Advanced Research Projects Agency Network. |
| c. ISP | i. An organization that provides Internet connectivity. |
| d. Web browser | vi. It helps to access information available on the Internet. |
| e. E-mail | vii. It stands for Electronic mail. |
| f. Cc | ii. It stands for Carbon copy. |

- g. Bcc v. It stands for Blind carbon copy.

5. Answer these questions :

- Ans. a. Internet is the biggest network of computers that connects millions of computers and computer networks together across the world.
b. ARPANET stands for Advanced Research Projects Agency Network. It was established by the US Defence department for research and analysis purposes.
c. Modem : It is a networking device that helps to connect a computer to the Internet via telephone lines.
d. Search engine : It is a specially designed website that helps to search for information about a topic on the Internet. An example—Google.
e. E-mail : It is an online corresponding system that helps to send and receive messages to and from the computer worldwide.
f. You can also send Word files, Excel sheets, or pictures through e-mail by attaching them.
g. Do not give out any personal information related to your family, friends or yourself like your full name, address, telephone or mobile numbers of your parents. This information can be misused, so be careful with what you say, and never give out your personal details.

Do not fill out forms online without consulting your parents or teachers. There are many websites which seek personal information and which use this information for marketing or other commercial purposes.

Never send pictures of yourself or any other person material to a friend you met online without consulting your parents first.

1

Computer System

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. iii b. iv c. ii d. i e. iv

2. Fill in the blanks using words from the help box :

- Ans. a. **Application** software are designed to perform a specific task.
 b. **Internet Explorer** helps to open webpages and surf the net.
 c. **Low-level** computer languages are machine codes or close to them.
 d. **High-level** language is also known as the symbolic programming language.
 e. BASIC stands for **B**eginners **A**ll-purpose **S**ymbolic **I**nstructions **C**ode.
 f. **Assembly** languages are basically symbolic languages that use English words and/or mathematical symbols.
 g. **Visual** programming languages are designed for building Windows-based applications.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. F c. T d. T e. T f. T g. F

4. Match the following columns correctly :

- Ans. a. Scanner iii. It helps to scan text and images and sends them into the computer.
 b. Printer vi. It helps to print the computer work on a sheet of paper.
 c. Plotter v. It helps to print maps and high quality graphic on big sheets.
 d. CPU vii. It is the processor or brain of the computer.
 e. RAM i. It is the main working memory of the computer.
 f. Hard Disk iv. It is the secondary memory and the main storage device of the computer.
 g. Pen Drive ii. It is the secondary memory and used by inserting in USB port.

5. Answer these questions :

- Ans. a. Hardware comprises of physical units of a computer that can be seen and touched. Computer hardware consists of these units :
 (i) Input devices (ii) Output devices
 (iii) Processing devices (iv) Storage devices
 Five hardware components of the computer—

Monitor, Printer, Scanner, Webcam, Platter.

- b. As the name suggests, Input devices help us to enter data and instructions into a computer. As we all know keyboard and mouse are the two most common input devices. Output devices help us to access the desired output and information. Monitor and speakers are two most commonly used output devices.
 c. Storage devices of a computer are called the Computer memory. Storage devices are used to store data and information.
 The primary memory of the computer is RAM.
 d. Software are the set of programs that help to use a computer system and make the hardware run.
 Two popular operating systems : Windows, Linux.
 e. Application Software is the software that is designed to complete a specific task, for example, Microsoft Paint cannot be used to type letters, it can only be used for drawing and colouring pictures.
 Application software can be classified as :
 1. Custom-made application software
 2. General-purpose application software
 f. Low-level computer languages are machine codes or close to them. A computer cannot understand instructions given in high level languages or in English. It can only understand and execute instructions given in the form of machine language, i.e. language of 0 and 1. There are two types of low-level languages.
 1. Machine language 2. Assembly language
 g. High-level computer languages give formats close to English language, and the purpose of developing high-level languages is to enable people to write programs easily and in their own native language environment (English). High-level languages are basically symbolic languages that use English words and/or mathematical symbols rather than mnemonic codes. Each instructions in the high level language is translated into many machine language instructions, thus showing one-to-many translations.

BASIC (Beginners All Purpose Symbolic Instructions Code)

FORTRAN (Formula Translation)

PL/1 (Programming Language, Version 1)

ALGOL (Algorithmic Language)

APL (A Programming Language)

2

Computer Network

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. iii b. i c. ii d. i

2. Fill in the blanks using words from the help box :

- Ans. a. Sensitive files and programs on a network are protected by **Passwords**.

- b. A **Personal Area Network** helps to connect computers to the mobile devices such as smartphones and tablets.
- c. A **Cloud network** provides different applications through an Internet connection.
- d. The **Twisted pair** cable consists of two independently insulated wires twisted around one another.
- e. In **Bluetooth** technology, eight devices can be connected to each other at the same time

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. F c. T d. T e. T

4. Match the following columns correctly :

- Ans. a. Server iii. It is the main computer in a network.
- b. Hub v. It is the central device in Star network.
- c. LAN i. It helps to connect computers within the same building.
- d. Bluetooth ii. It is a wireless technology that helps to connect personal mobile devices.
- e. Internet iv. It is the biggest network of computers across the world.

5. Answer these questions :

- Ans. a. A Computer Network is a collection of computers connected together for sharing information and hardware, software resources. A network can be formed with wired or wirelessly.

Advantage :

1. **Security** : Sensitive files and programs on a network are protected by passwords. They can be made available as read only. This helps in avoiding copying of programs.

2. **Speed** : Sending and receiving files using a computer network is rapid. It saves time, and is more convenient as compared to files which are manually delivered.

Disadvantages :

1. If the network stops operating then the computers connected to the network cannot be used, thus affecting the performance of the entire system.

2. If the server develops a fault then users may not be able to run the application programs and chances of data loss are more.

- b. **Server** : A Server is a computer that manages the network resources, software and files. It is normally dedicated, that is, it performs no other task besides the allocated task.

Workstation : A Workstation is a computer intended for individual use in a networking environment. It is like a personal computer except that it is connected to other computers as well as to the main computer, that is, the server.

- c. **Local Area Network (LAN)** : LAN is implemented over a relatively small area, like connecting computers within a single building or we can say one office or organization. Each node in a LAN has a CPU which can execute program, but it can share details from other terminals also. All the terminals in the LAN can share the same expensive device, such as laser printers. Ethernet and FDDI are examples of LANs.

Metropolitan Area Network (MAN) : This type of network connects smaller networks around a town or city. It is smaller than WAN but larger than LAN.

MANs are usually characterized by very high-speed connections using fibre optical cables. We can say all the universities or colleges in a particular city can be connected using MAN.

Wide Area Network (WAN) : A Wide Area Network is a geographically dispersed telecommunications network. It connects networks such as between different buildings, towns or even countries. A WAN may comprise of many LANs. Internet is the best example of WAN.

The Internet : The Internet is the biggest network of computers connecting billions of networks together across the globe.

It connects thousands of computers world-wide. It provides many useful services such as world wide web (WWW), E-mail and so on. You can connect your computer to the Internet through telephone lines or wirelessly.

- d. **Bus topology** : The bus topology was fairly popular in the early years of networking. It is easy to set up, but it is expensive. All devices in this topology are connected using a single cable. If one node in the network fails, the others are not affected.

Star topology : One of the most popular topologies for Ethernet LANs is the Star topology. It is easy to set up and it is relatively cheap. The Star topology works by connecting each node to a central device.

- e. **Bluetooth** : Bluetooth is another wireless communication medium operating over short distances. It has a normal range of approximately 3-300 feet depending on the devices connecting. These devices can be mobile phones, personal computers, laptops, digital camera, MP3 players, etc.

3

More About PowerPoint 2010

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. ii b. iii c. iii

2. Fill in the blanks using words from the help box :

Ans. a. MS PowerPoint 2010 is a popular **Presentation** software.

- b. A **Placeholder** is an object that can hold the text on the slide.
- c. A **Colour scheme** consists of eight different co-ordinated colours used by all the elements of a slide.
- d. The **Slide Sorter** view helps you to reorder the slides quickly and easily.
- e. You can press **F5** key to start the Slide Show.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. F c. F d. F e. T

4. Answer these questions :

Ans. a. MS PowerPoint 2010 provides you many tools to present textual and graphical information. You can combine text, pictures, cliparts, word arts, charts, animations, audio, video and other multimedia components to your slides.

MS PowerPoint allows you to create professional looking presentations.

b. **Presentation** : It helps you to present information in an effective and interesting way. The information is presented in the form of slides.

Slide : A single electronic page of the presentation that can contain text and graphic objects.

c. Design Template is a set of pre-designed formats and colour schemes that can be applied to the background of a presentation.

To apply a design template on a presentation, follow these steps :

Step 1 : Click on the Format tab, and then select

Slide Design option. The Slide Design task pane appears.

Step 2 : Click on Design templates option on the Slide Design task pane, to display the list of PowerPoint's design templates.

Step 3 : Select the desired design template from the list of design templates.

d. Transition is a special effect added to the slide's initial appearance on screen.

The slide can appear from the right, dissolve gradually or fade through the background of the previous slide.

Adding Transitions Effects to Slide(s)

To add transition effects to slide(s), which will be effective at the time of Slide Show, follow these steps:

1. Select the slide(s), in which you want to add transition effect.

Now, do one of the following :

To add the same transition to all slides in a Slide Show presentation, follow these steps :

Step 1 : Select the transition effect from the Transitions tab.

Step 2 : Click on Apply to All Slides from the Timings group if you want to apply the same transition to all slides.

Step 3 : To add different transitions between slides, select individual slides and choose the transition options of your choice.

e. Animation : It is a sound or visual effect that is applied to the object/s of a slide.

4

Introduction to HTML

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. ii b. ii c. iii d. iv e. ii

2. Fill in the blanks using words from the help box :

Ans. a. **HTML** is a scripting language used for creating web pages.

b. The HTML documents are saved with an extension **.html**.

c. Notepad and WordPad are the examples of **Text** editor.

d. HTML elements that include only an ON tag and no OFF tag are called **Empty** elements.

e. HTML elements that include both an ON tag and an OFF tag are called **Container** elements.

f. HTML documents have two distinct parts, **Head** and **Body**.

g. The **bgcolor** attribute allows you to specify a colour to be used as background in the web page.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. F c. F d. F e. T f. T g. F

4. Match the following columns correctly :

- | | |
|-----------------------|---|
| Ans. a. HTML | iii. A markup language that helps to create web pages. |
| b. Text editor | vii. A software used to write HTML documents. |
| c. Tags | iv. HTML codes written within in the angler brackets. |
| d. Web browser | i. A software used to view HTML document. |
| e. Attributes | vi. The properties of an HTML tag. |
| f. Container Elements | v. Any HTML elements that have both an ON and OFF tags. |
| g. Empty elements | ii. Any HTML elements that have only an On tag. |

5. Answer these questions :

- Ans. a. HTML is a scripting language used for creating web pages. HTML stands for Hyper Text Markup Language.
- b. HTML is a scripting language (or markup language)

which differs completely from programming languages.

HTML is a cross-platform language, i.e., HTML documents can be used on any type of computer or platform like Macintosh Computer, IBM Computer, Unix, Windows etc.

It has additional features of linking documents.

- c. A web page is made up of elements defined by HTML codes known as Tags. A tag is a specific instruction enclosed in angled brackets < and > which is attached to a part of the document.

```
<HTM> <HEAD> <TITLE> <BODY>
```

- d. **Container Elements** : Most Tags in HTML consist of an ON tag and an OFF tag. The OFF tag is written similar to the ON tag except that it contains a slash sign (/) after the opening bracket, <. The elements that contain both the ON and OFF tags (also known as Opening and Closing tags) are called Container Elements.

Empty Elements : These elements have only an ON tag and no OFF tag. The empty elements do not act on blocks of text, but perform a general operation on their own.

- e. BODY element is also a container element. This element identifies the main part, i.e., the Body section of the document which includes all the text, graphics, images and tags that make the web page.

The BODY element has the following attributes :

- background
- text
- alink
- left margin
- bgcolor
- link
- vlink
- top margin

- f.

```
<HTML>
  <HEAD>
    <TITLE> USAGE OF BGCOLOR </TITLE>
  </HEAD>
  <BODY bgcolor = "Navy">
    <H1> WELCOME TO HTML </H1>
    <H3> This page displays the use of a
      color in the background.
    </H3>
  </BODY>
</HTML>
```
- g.

```
<HTML>
  <HEAD>
    <TITLE > TEXT COLOR < /TITLE>
  </HEAD>
  <BODY bgcolor = "Gray" text = "Red">
    <H1> WELCOME TO HTML </H1>
    <H3 > This page demonstrates the use of text color
      along with a background color.
    </H3>
  </BODY>
</HTML>
```

5

Introducing Photoshop

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. ii b. ii c. iv d. i e. iii f. iv

2. Fill in the blanks using words from the help box :

- Ans. a. **Photoshop** is an image-editing software used to create and modify pictures and photographs.
b. **Tools** panel contains tools for creating and editing images, artwork, page elements etc.
c. The **Place** option from the File menu lets you insert an image in Photoshop.
d. The **Lasso** tool is used to select the image in an irregular way.
e. The **Magic Wand** tool is used to select an adjacent area of the image having same colour.
f. The **Move** tool is used to move an image from one place to another on canvas.
g. You should hold on the **Alt** key while using the Clone Stamp tool.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. F c. T d. T e. F f. F g. F

4. Answer these questions :

- Ans. a. Photoshop is an image-editing software. It is used to create and modify pictures and photographs and transform your digital photographs into works of art which you can share with your family and friends.

- b. This tool is used to make selections on the image. The tool includes Rectangular, Elliptical, Single-row, and Single-column marquee.

- c. Follow these steps to insert an image on Photoshop window :

Step 1 : Click on the Place option in the File menu. The Place dialog box appears.

Step 2 : Select an image from the Pictures folder and click Place button.

Step 3 : Click on the image and drag it to the point where you want to place it.

Step 4 : Resize the image by dragging the canvas nodes. And rotate the image by placing the cursor slightly away from the corner node, rotate cursor appears and then rotate the image to desired angle.

Step 5 : Press Enter or Double-click on the image when you have placed it in the desired location.

- d. **Move Tool** : We can move an image from one place to another with the help of Move Tool.

The Crop Tool : The Crop tool is used to remove unwanted portion of an image or to retain the desired area of the image. The area outside the selection is removed from the screen.

- e. **Dodge and Burn tools** : These tools are used to lighten and darken the areas of an image respectively.

- f. Retouching allows you to fix flaws such as scratches, blemishes, or inconsistencies in the image. You can use the Healing Brush Tool that contains three hidden tools : the Spot Healing Brush Tool, the Patch Tool and the Red Eye Tool for retouching the image.

Spot Healing Brush Tool : You can fix the unwanted scratches, blemishes, dark spots of an image by

covering the area with a sample that Photoshop automatically selects from the surrounding area.

- g. **.GIF**—Graphics Interchange Format
.JPEG—Joint Photographic Experts Group
.TIFF—Tagged Image File Format
.PNG—Portable Network Graphics
.PDF—Portable Document Format

6

Internet Applications and Cyber Safety

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. iv b. ii c. ii d. ii

2. Fill in the blanks using words from the help box :

- Ans. a. The online buying and selling of goods and services is known as **E-commerce**.
 b. **Freeware** are software that can be downloaded for free and used by anybody.
 c. Search engines are useful when you don't know the **URL** of a website.
 d. **Social networking** sites are created for people to stay in touch with their friends.
 e. **Newsgroups** are online discussion groups.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. F c. F d. F e. T f. F g. T

4. Match the following columns correctly :

- Ans. a. Internet iv. It is the network of computers, that connects millions of computers and other computing devices world-wide.
 b. E-mail v. It helps to send and receive messages online.
 c. Facebook i. It is a very popular social networking site.
 d. E-commerce vii. It refers to buying and selling goods and services on the Internet.
 e. Cyber safety iii. It refers to the safe and responsible use of ICT.
 f. Internet Explorer ii. It helps to access information stored in the WWW.
 g. Modem vi. It is a hardware that connects a computer to the Internet via telephone line.

5. Answer these questions :

- Ans. a. The Internet is a network of computers, spread all over the world, that allows users to share information and to communicate with each other. The first thing you need to access to the Internet is a Computer or a computer-like device. Next requirement is a Modem.
 b. E-mail, Chatting, Searching, Downloading, video Conferencing.
 c. The e-mail is a fast, easy and inexpensive way of

communication over the Internet. It is one of the earliest and most popular services of the Internet. E-mailing allows you to send text messages, images, videos and music files to/from any Internet user who has an e-mail account. The person receiving the mail can also answer back immediately.

www.yahoo.com, www.gmail.com, www.rediffmail.com and www.hotmail.com.

- d. Chatting is talking in real time over the Internet. E-mail is not real time as the parties do not have to be online at the same time. A chatroom is a site that lets you send typed messages which are immediately received by your friend.

Video conferencing is a facility provided by the Internet where a group of people placed all over the globe can have an online conversation.

- e. E-commerce refers to the buying and selling of goods and services online. The Internet is becoming extremely popular as a place to carry out business. Individuals or companies wishing to sell a product by hosting their websites or advertising their products on web portals which have been created particularly for such transactions.
 f. Social networking sites are created for people to stay in touch with their friends. One can create personal web pages on social networking sites hosted by services like Orkut, Hi5, My Space, Twitter, Facebook, and others.
 g. Cyber safety is the safe and responsible use of Information and Communication Technologies (ICT) or the Internet.

It is important to know the ways in which a hacker can harm you and how to protect yourself from being hacked.

- Someone can steal password of your email account and send objectionable e-mails from your account to your friends or other persons.
- Someone can steal password of your social networking account and send objectionable comments to your friends or upload unpleasant photographs.
- If you are using web cam, that web cam can be hacked and it is possible that somebody can be watching you through your web cam. Your web cam could be taking pictures without your knowledge and those are being sent to the hacker.

4. While using the ATM card, the card data and password could be recorded and cloned.
5. While surfing the web, if you think some website is not safe and carries doubtful contents, don't

open it. Opening such a website could transfer and install spy software on your computer which in turn can steal information from your computer.

7

Qbasic and Loops

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. i b. iii c. ii d. ii e. i

2. Fill in the blanks using words from the help box :

- Ans. a. Loops are meant for the **Repetition** of a particular activity.
 b. In the FOR....NEXT structure, FOR statement is the **Beginning** of the loop.
 c. Every DO WHILE....loop ends with the **Loop** statements.
 d. A **Counter** variable is used to control the execution of a DO WHILE.....loop.
 e. **DO UNTIL** structure executes the statements until the condition is true.
 f. DO WHILE.....LOOP is performed as long as the condition being tested is **True**.
 g. EXIT command is used followed by either **FOR** or **DO**.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. F b. T c. T d. T e. T f. F g. T

4. Differentiate between the following loops :

- Ans. a. DO WHILE ... LOOP is performed as long as the condition being tested is 'true'.
 FOR .. NEXT structure is used when you want to perform a loop a specific number of times.
 b. DO UNTIL ... is different from DO WHILE ... as it executes the statements until the condition is true.
 A DO WHILE ... LOOP is performed as long as the condition being tested is true.
 c. The purpose of DO ... LOOP and WHILE WEND is similar except for the syntax.
 A DO WHILE ... LOOP is performed as long as the condition being tested is true.

5. Match the following columns correctly :

- | | |
|-----------------|--|
| Ans. a. Loop | ii. Repetition of an activity. |
| b. QBasic | v. A computer language in which programs can be created. |
| c. Program | iii. A set of instructions. |
| d. Instructions | i. Commands that can be executed by the computer. |

e. Programming language iv. A Programming language

6. Answer these questions :

- Ans. a. Loops are meant for the repetition of a particular activity. Three loop structures used in a QBasic program : For Next, Do While, While Wend.
 b. FOR .. NEXT structure is used when you want to perform a loop a specific number of times.
 CLS
 FOR A = 1 TO 5
 PRINT A
 NEXT A
 c. The purpose of DO ... LOOP and WHILE WEND is similar except for the syntax. If the condition is placed at the end of the loop, the loop is executed at least once.
 CLS
 LET num = 5
 WHILE num <= 50
 PRINT num
 num = num + 5
 WEND
 d. DO WHILE ... LOOP is performed as long as the condition being tested is 'true'.
 DO UNTIL ... is different from DO WHILE ... as it executes the statements until the condition is true.
 e. EXIT command is used to come out of a loop before the expected number of executions. EXIT command is used followed by either FOR or DO.
 CLS
 FOR M = 1 TO 5
 PRINT M
 IF M = 3 THEN EXIT FOR
 NEXT M
 f. FOR A = 1 TO 10
 PRINT A
 NEXT A
 g. Syntax :
 DO UNTIL test condition
 Statement1
 Statement2
 ...
 LOOP

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. iv b. iii c. ii d. iv

2. Fill in the blanks using words from the help box :

- Red Hat and SuSE are the two popular distributions of Linux.
- The **Kernel** is the core of the Linux operating system.
- A filename may be up to **28** characters long.
- A **Pathname** defines the location of a file within the root directory.
- You can erase a directory by using the **rmdir** command.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. T c. T d. F e. T

4. Match the following columns correctly :

- | | |
|------------------|---|
| a. more command | vii. Helps you to display the contents of a file. |
| b. pico command | i. Helps you to open and edit a file. |
| c. rm command | iii. Helps you to remove a file. |
| d. cp command | v. Helps you to copy a file from one location to another. |
| e. mv command | vi. Helps you to move a file from one location to another. |
| f. rmdir command | iv. Helps you to remove a directory. |
| g. mkdir command | ii. Helps you to create a new directory within the current directory. |

5. Answer these questions :

- Linux is an open source operating system that can be downloaded freely from the Internet.
- A filename may be up to 28 characters long.
 - A filename cannot have a space in between the characters.
 - All the following characters could be used while naming a file in Linux.
- The Kernel is the core of Linux operating system. The Shell is a special program that acts as an interface between the user and the operating system.
- Wildcards generate a pattern which is looked up in the filenames. All files that have matching names with the pattern are then accessed for the command.

Linux defines a set of wildcards for easy file accession:

Wildcard	Function	Example	Explanation
?	Matches a single character	x?	All filenames beginning with "x" followed by any character; and having only two characters in the name
*	Matches any number of characters	x*	All filenames beginning with "x" followed by any number of characters

- You are already aware that a directory is a folder that contains a collection of files in computer system. Linux has its own set of default directories. The root directory "/" is the one from which all other directories branch out. The following are most common directories of Linux :

/	Root directory
/root	Primary directory of root
/home	Where each user's directories are contained
/var	Where user specific files are stored

- /etc : Contains system configuration files
 - /dev : Where all device files that control resources attached to the server are stored
 - /proc : System files
- Displaying A File-more command**—The more command can be used to display the contents of the file Myfile.txt. To do so, type the following command :
more Myfile.txt
Opening A File-pico command—Once you create and save a file in vi editor and then exit, you may want to open it again. For this purpose, Linux has a special command which allows you not only to open the file but also edit it. This command is called the pico command.
To open and edit Myfile.txt, type in the following command :
pico Myfile.txt
Erasing A File-rm command—The rm command allows you to erase a file in Linux file structure. The command followed by the filename deletes the respective file forever from the directory. For example, to delete Myfile.txt the command will be :
rm Myfile.txt

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. ii b. ii c. i

2. Fill in the blanks using words from the help box :

- Application** programs are written to carry out local tasks such as problem solving and file handling.
- An **Interpreter** helps to translate Java bytecode into machine code.
- In Java, OOPS refers to **Object-oriented** programming language.
- An **IDE** provides programmer an environment to write, compile and run the program.
- After writing a Java program in a text editor you should save it with the file extension **.java**.
- You can click on the **New Project** option in the Project menu to create a new project using BlueJ.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. F c. T d. F e. F f. T

4. Match the following columns correctly :

- | | |
|-----------------|--|
| a. Compiler | ii. It converts Java program into Java bytecode. |
| b. Interpreter | iii. It converts Java bytecode into machine code. |
| c. BlueJ Editor | v. It is an IDE that helps to write Java codes, find errors and debug the program. |
| d. Applet | iv. It is a small window based program developed for internet application. |
| e. OOPS | i. It refers to the programming language based on objects. |
| f. JDK | vi. It stands for Java Development Kit. |

5. Answer these questions :

- JAVA is a third generation programming language which is used to write computer applications/ programs. It is a highly versatile, class-object, object-oriented programming language. Java programming language is similar to 'C' programming language.
- Java solves the problem of platform-independence by

using bytecode. Java bytecode is exactly the same on every platform. Java programs that have been compiled into bytecode still need an interpreter to execute them on any given platform.

Name the software that Interpreter converts Java bytecode into machine code.

- An IDE provides programmer an environment to write, compile and run the programs. Netbeans and BlueJ are two popular Java IDE.
- To write Java programs, the environment provided is BlueJ. It is especially designed for beginners in programming language. BlueJ is a free Java environment available from <http://bluej.org> and is a good JDK.
- Compiler**—It converts Java program into Java bytecode.

Interpreter—It converts Java bytecode into machine code.

- Encapsulation** : It means hiding the important data and functions from the outside world by keeping it as a single unit. For example, a Car is a class with important properties like engine, combustion, etc. Its basic function is to driven. The driver should know how to drive and need not to know the internal working of the car. So, these important functions and features are hidden inside the class—Car.

Polymorphism : Polymorphism, in Greek, means the ability to take more than one form. In simple language, poly means many and morphs means forms. It is the ability of an object to exist in various forms. Polymorphism is a concept linked to inheritance and assures that derived classes have the same functions even though each derived class performs different operations. For example, rectangle, a circle, square, etc., are all shapes and as shapes their area and perimeter can be calculated. But each shape calculates its area in a specialised way.

- Class Declaration** : Every Java program must be enclosed in a class. The name of the class can be any user defined name preceded by keyword public. It means that the program is publicly available to the other programs.

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. i b. ii c. iii

2. Fill in the blanks using words given in the help box :

- The **<Hn>** tag helps to make headings in six different levels.
- To start a new line, the **
** tag is used.
- Blank spaces can be added in the text by using the ** ** tag.
- HTML provides **Seven** options values for the Font size.

e. The **** tag helps to change the font of the text.

f. There are **Six** different levels of heading in HTML.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. F b. F c. T d. F e. T

4. Name the tags :

- <P>**
- **
- **
- <Strike>**
- <I>**

5. Answer these questions :

- HTML is scripting language that helps to create web

pages for the Internet. HTML stands for Hypertext Markup Language in which Hypertext refers to the way in which web pages (HTML documents) are linked together. When you click a link in a web page, you are using hypertext.

- b. When writing HTML, we add “tags” to the text in order to create the structure. These tags tell the browser how to display the text or graphics in the document. Four basic tags used to create the HTML documents are <HTML>, <Head>, <Title>, <Body>.
- c. Heading tag or <Hn> tag is used to display headings in your web page.

Example :

```
<HTML>
<HEAD>
<TITLE> HEADING </TITLE>
</HEAD>
<BODY>
<H1> WELCOME </H1>
<H2> WELCOME </H2>
<H3> WELCOME </H3>
<H4> WELCOME </H4>
<H5> WELCOME </H5>
<H6> WELCOME </H6>
</BODY>
</HTML>
```

- d. The font of the text can be changed by using the container element . The tag can make the attributes face and size.

Example :

```
<HTML>
<HEAD>
<TITLE> CHANGING THE FONT AND FONT SIZE
</TITLE>
```

```
</HEAD>
<BODY>
<FONT face = arial size = 2>WELCOME TO HTML
</FONT>
<BR>
<FONT face = broadway size = 5>WELCOME TO
HTML
</FONT>
<BR>
<FONT face = arial size = 7>WELCOME TO HTML
</FONT>
</BODY>
</HTML>
```

- e. To change the alignment of text in a paragraph, ‘Align’ attribute can be used. ‘Align’ attribute can take any one of the four values, i.e., align = left, align = center, align = right or align = justified.
- f. Heading tag or <Hn> tag is used to display headings in your web page.

Example :

```
<HTML>
<HEAD>
<TITLE> HEADING </TITLE>
</HEAD>
<BODY>
<H1> WELCOME </H1>
<H2> WELCOME </H2>
<H3> WELCOME </H3>
<H4> WELCOME </H4>
<H5> WELCOME </H5>
<H6> WELCOME </H6>
</BODY>
</HTML>
```

4

Macromedia Flash 8

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. ii b. iv c. iv d. i

2. Fill in the blanks using words from the help box :

- Flash** is a very popular and powerful animation software package.
- Graphics created in Flash are much **smaller** in file size.
- The **Property Inspector** displays the properties of the selected objects.
- The **Frame** is an area on the screen to work with layers and frames.
- The **Rectangle** tool is used to make a rectangle.
- Timeline** represents the content of the movie at one point of time.
- The layer that you work on is called **Active layer**.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. F b. T c. T d. F e. T f. T g. F

4. Answer these questions :

- Animation is anything that moves on your screen, for example, a cartoon character. Animation techniques available now a days can make a series of still images come alive.
- Title Bar** : The Title bar displays the name of the currently opened file.
Menu Bar : The Menu bar is used for easier access to different program features.
Stage : The Stage is the white rectangular drawing board where you can create animations, graphics and do all your work.
Work Area : It refers to the light grey area around the stage. It is used to keep your objects until you want to appear them on stage.
Tools panel : It contains all necessary tools for drawing. It is divided into four parts i.e., Tools, View, Colors and Options.
- The Property Inspector displays the properties of the

selected objects. Some of the properties are Stroke Colour, Fill Color, Stroke Height and Stroke Style.

- d. **Frames** : A little rectangular cell that appears on the timeline is known as Frame. Animations are created with the help of these frames.

Layers : A layer contains its own timeline with endless frames. The active layer is indicated with the pencil icon next to a layer name in the timeline.

- e. The Free Transform tool is used to scale, rotate, compress, stretch and skew the object or shape. It has four options i.e., Rotate and Skew, Scale, Distort and Envelope.

- f. The Paint Bucket tool is used to fill an object and shape with colour. Follow these steps to fill the object.

The Eyedropper tool is used to copy the colour from one object to another.

- g. Motion tweening is moving an object from one place to another. Motion tween can also mean changing colours over time. You can implement motion tweening to an object by specifying the first and last

keyframe. Flash automatically fills in the frames in between.

Steps to create motion tween :

- Step 1** : Select the first frame and draw a shape. For example, a ball and convert it into a symbol. You can see a blue square around the image.

- Step 2** : Select desired frame, say 25 and insert a keyframe by pressing F6.

- Step 3** : You will see all the frames from 2 to 24 are grey in colour. And last frame i.e., 25 has a fill with a black dot. It indicates that it is keyframe.

- Step 4** : Select the frame 25 and move the ball to another location on stage.

- Step 5** : Select any frame between 2 to 24.

- Step 6** : Right-click at the grey area and select Create Motion Tween.

- Step 7** : Play the movie, you will see the ball moving from one place to another.

5

MS Access 2010—A DBMS

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. iv b. ii c. i

2. Fill in the blanks using words from the help box :

- a. A **Database** is an organized way of storing data and keeping records in a computer.
- b. **Microsoft Access** allows users to carry out all the functions of a DBMS.
- c. The **Create** tab contains commands that allow users to create database objects.
- d. A field name cannot have [] symbol.
- e. **Sorting** refers to arranging data alphabetically or in ascending or descending order.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. F c. T d. F e. T

4. Answer these questions :

- a. A DBMS or Database Management System is a computer program which provides facilities to add, modify or delete data from the database, ask questions (or queries) about the data stored in the database and produce reports summarizing selected contents.
- b. Advantages of a Database—To know the advantages of a database, it is essential to know how ordinary file systems work. An ordinary file system has a lot of disadvantages like duplication of data, data vulnerability, data inconsistency, etc. Let us see how a database is superior to an ordinary file system.
Reduces Data Redundancy—In a Database System, some data only needs to be entered once and then it is available to all other files. It reduces the problem of

duplication of data and hence reduces data redundancy. For example, you need to enter Employee_ID and names of employees only once in a file and the rest of the files can pick the employee name from this file by establishing their link to the field Employee_ID.

Improves Data Security—A database can limit access only to authorised users for adding, editing, deleting or viewing the records. For example, in an Employee table, the Salary field can be accessed only by Accounts department and can be updated only by the higher management personnel.

Removes Data Inconsistency—When data is updated in a database, everybody can access the same updated data as no separate files are maintained for the same set of data. For example, when a new employee joins, or an existing employee leaves the organization, addition and deletion of those particular employees for the master file is done and changes are reflected in all other files which access the employee records from the master file.

- c. Defining a Primary Key in a Table

A Primary Key is a field which uniquely identifies a record. For example, Roll No is a Primary Key for the table 'Student'.

To define a Primary key, follow the steps given below :

- Step 1** : Click on the down arrow of the View option in the Views group under the Fields tab. A list of views appears.

- Step 2** : Click on the Design View from the list.

OR

Click on the Design View button on the Status bar.

- Step 3** : Select the field name ID.
Step 4 : Click on the Primary Key button, present on the Tools group under the Design tab.
 OR

Right-click on the header of the column that will be the primary Key and then click on Primary Key from the shortcut menu that appears.

Step 5 : Change the name of the field to Roll No.

- d. Text—It stores text, combination of text and numbers (like addresses) and numbers that will not be used in calculations (like phone numbers and postal cards). It can store upto 255 characters.

6 More About Photoshop

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. i b. i c. ii

2. Fill in the blanks using words from the help box :

- a. Filters are used to change the **appearance** of an image.
 b. In Photoshop, there are **11** categories of filters.
 c. **Blur** filters are used to soften either an area of a photograph that you have selected or an entire image.
 d. Not all filters in Photoshop are available through the **Filter gallery** .

3. Name the following :

- a. Blur b. Artistic
 c. Sharpen d. Render

4. Answer these questions :

- a. Filters are used to change the appearance of an image. In Photoshop, there are 11 categories of filters and a total of 47 filter options.

Number—It stores numeric data that will be used in calculations.

Currency—It specifies various currencies and displays them in different formats.

- e. **Renaming a Field** – To rename a field name, follow the steps given below :

Step 1 : Take the mouse pointer to a field that you want to rename.

Step 2 : Right-click on that field. A pop-up menu will appear.

Step 3 : Click on the Rename Field option and change the field name.

- b. To use the Filters from the Gallery, the steps are :

Step 1 : Click on Filter and choose Filter Gallery.

Step 2 : The Filter Gallery window appears as shown. Here you can choose the options and view the effects.

- c. Define the following filters :

i. Artistic—Using one of these filters will make your image look like it was created by an artist.

ii. Noise—The Noise filters add or remove noise or pixels with randomly distributed color levels.

iii. Blur—Blur filters are used to soften either an area of a photograph that you have selected or an entire image.

iv. Distort—Using one of these sets of filters lets you distort your image in creative ways.

- d. Filter Thumbnails Column : You can select filter to apply your image from this column by clicking at its thumbnail. Filters are organised in foldable menu by group that is listed above.

7 Internet and Virus

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. i b. ii c. iv d. iii e. ii

2. Fill in the blanks using words from the help box :

- a. The Internet is the biggest **Network** of computers worldwide.
 b. A **Protocol** is a set of rules that the computers connected to a network have to follow.
 c. SMTP stands for **Simple** Mail Transfer Protocol.
 d. The two most commonly used protocols are **TCP** and **IP**.
 e. An **Scan** uses several methods to identify virus.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. T c. T d. F e. T

4. Match the following columns correctly :

- a. .gov ii. Represents a government department.
 b. .com iv. Represents a commercial organization.

- c. .net iii. Represents a networking organization.
 d. .org v. Represents a non-profit organization.
 e. .edu i. Represents an educational institution.

5. Answer these questions :

- a. File information can be transferred through channels like a telephone line. When a file is sent to another computer, the process is called uploading.

- b. Thus, a protocol is a set of rules that the computers connected in a network have to follow.

The two most commonly used protocols are TCP (Transmission Control Protocol) and IP (Internet Protocol).

- c. When information is transferred from one computer to another, it is important that both the computers, i.e., the sender and the receiver, are using the same set of rules. This is essential because it determines the format in which data is being sent. This set of rules is called File Transfer Protocol (FTP).

- d. **Program Viruses** : These infect program files that commonly have extensions such as .COM, .EXE, .SYS, .OVL, or .SCR. The most common programs attacked by viruses are standard DOS programs that have the .COM and .EXE file extensions. Examples of such viruses are Acid Rain, Trojan, Amoeba 298°, etc.
Boot Viruses : These infect the non-file areas of the hard disk and floppy disks. These areas offer an efficient way for a virus to spread from one to another. Examples are Danish Boot, Devil.941, etc.
Macro Viruses : These infect data files. They spread rapidly as infected documents are shared across networks. Examples are XM.Yohimbe.A, Melissa.mp, etc.
- e. Scan all external disks before using them for the first time.
 Update your anti-virus programs regularly.
 Make regular backups of your hard disk.
- f. Anti-virus software is a computer software used to identify and remove computer viruses. There are many other types of harmful computer software that are collectively referred to as malware. The first anti-

virus was designed specially to combat computer viruses; most modern anti-virus software, however, can protect your computer against a wide range of malware.

- g. Click on Start → All Programs. Then select your anti-virus program from the menu. Click on it. Here, we shall learn about the Quick Heal AntiVirus Pro program.

Click on Scan option.

- (i) Full System Scan (ii) Custom Scan
 (iii) Memory Scan (iv) Boot time Scan

Projects and Activities

Write the full forms of the following terms :

- HTTP : **Hypertext Transfer Protocol**
- FTP : **File Transfer Protocol**
- URL : **Uniform Resource Locator**
- SMTP : **Simple Mail Transfer Protocol**
- WWW : **World Wide Web**
- Telnet : **Telnet Remote Protocol**
- TCP : **Transfer Control Protocol**
- IP : **Internet Protocol**

8

Introduction to Visual Basic

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. iii b. ii c. iv d. ii e. ii

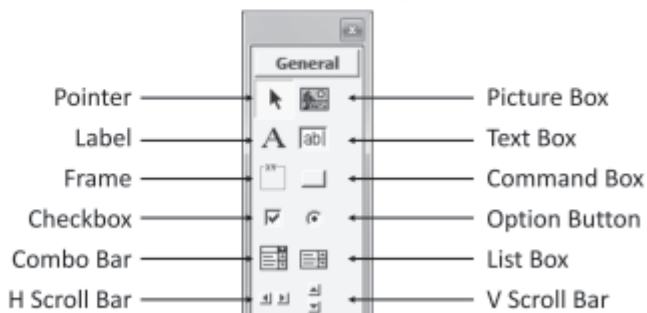
2. Fill in the blanks using words from the help box :

- Visual Basic is an **Event** driven programming language.
- IDE** is a term commonly used in the programming world.
- The start up window that appears when you open Visual Basic is **New Project** window.
- The **Recent** tab in the New Project window displays the list of the most recently created projects.
- Option button control is used to create **Radio** buttons.
- Text Box** control creates a box where text can be entered.
- A single VB project can have many **Forms**.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. F c. T d. F e. T f. T g. T

4. Label the controls in the following Visual Basic tool box :



5. Match the following columns correctly :

- | | |
|---------------------------|--|
| a. Check Box control | v. Displays a True/False or Yes/No option. |
| b. Combo Box control | vi. Helps to display a drop-down list of items. |
| c. Text Box control | iv. Helps to create a text box which can contain text. |
| d. Picture Box control | ii. Is used for graphics files. |
| e. List Box control | iii. Displays a list of items from which a user can select one. |
| f. Drive List Box control | vii. Displays the valid disk drives and allows the user to select one of them. |
| g. File List Box control | i. Displays list of files in Combo box. |

6. Answer these questions :

- Visual Basic is a high-level programming language developed by Microsoft. The basic aim of creating this language was to give a user-friendly environment that supports Graphical User Interface (GUI).
- Integrated Development Environment (IDE) is a term commonly used in programming world to describe the interface and the environment that you use to create your own applications. It is called integrated

because it has many features like designing, editing, compiling and debugging within a common environment.

- c. **Project**—Just like a book comprises of many chapters, all the programs created are organized and stored in a project. The default name of the first project, when Visual Basic is opened, is “Project1”. The file extension of a Visual Basic Project is .vbp.
- d. 1. **Pointer**—It is used to select and resize/move an object.
2. **Label**—It is used to display a text which cannot be modified when the program is executed.
3. **Frame**—It contains a group of tools/controls.
4. **CheckBox**—It displays a True/False or Yes/No option.
5. **ComboBox**—It is used to produce a drop down list and the user is allowed to select an item from the list.
- e. **Menu Bar**—The Menu Bar displays the commands that are required to build an application. The main menu items have sub-menu items that can be chosen when needed.
- f. **Adding Controls on the Project**
 1. In the New Project window, select the command button (as shown in the figure) and drag the control in the form area.

2. Default name “Command1” will appear on the command button. To make any change in the command button, its properties should be changed.
 3. To open the property of any control, say command1, select it and then from the menu bar, click View → Properties Window (key F4 can also be pressed).
 4. The Property window appears on the right side of the screen.
 5. Select option Property and change the name to “EXIT” as shown in the figure.
 6. Form name can also be changed in the similar manner to “Beginner Form”.
- g. **Executing Your First Visual Basic Program**
1. When you open the first project “Project1”, then the adjacent screen appears :
 2. From the Menu Bar, click Run → Start, as shown. Key can also be pressed to directly run the project.
 3. You will see the adjacent window when the project is executed.
 4. To stop the execution and return back to the editing mode, click on the cancel/close button (x).

9

Continue with Visual Basic

Test Your Progress

1. Tick (✓) the correct answer :

Ans. a. i b. iii c. iii d. iv e. iv

2. Fill in the blanks using words from the help box :

- a. The term Event means **Action**, which is invoked through a program.
- b. The **END** command helps to stop the execution of a program.
- c. **Command-Click** event is invoked when the command button is clicked.
- d. **Font** property of the Form can change the font size of text of the Form title.
- e. The **Label** property specifies whether or not the Label should be visible during the execution.
- f. The **Text_Dbclick** event is invoked when the user double clicks inside the text box.
- g. **Visible** is a control which is used to display some content on the Form.

3. Write 'T' for true and 'F' for false for the following statements :

Ans. a. T b. F c. F d. T e. F f. T g. T

4. Write the function of the following controls in the space provided :

- a. **Label** : Display labels to make the form interactive
- b. **Text Box** : Accept value during execution
- c. **Check Box** : Displays a True/False or Yes/No option
- d. **Option Button** : Accept input inform of Yes/No

e. **Command Button** : When clicked it carries out the specified action

f. **Pointer** : It is used to select and resize/move and object.

5. **Answer these questions :**

- a. Visual Basic is an Event driven programming language that helps to create Windows-based applications.
- b. Event is the reaction invoked by a control, when some action is made to it, like a button clicked or data entered in a text box etc.
- c. **Name**—It gives the name to the Label. The default name is Label1.
Caption—It allows to change the name appearing on the Label.
BackColor—It gives the Background colour to the Label.
- d. **Text** property is used to extract the value from the text box.
- e. **Name**—It gives name to the command button. The default name is Command1.
Caption—It allows to change the name appearing on the Button.
Font—It specifies the Font, Font style and Size of the text appearing on the button.
- f. **Text Box Control** is used to create a text box to accept values during execution.
- g. By pressing F5 key to execute a program.