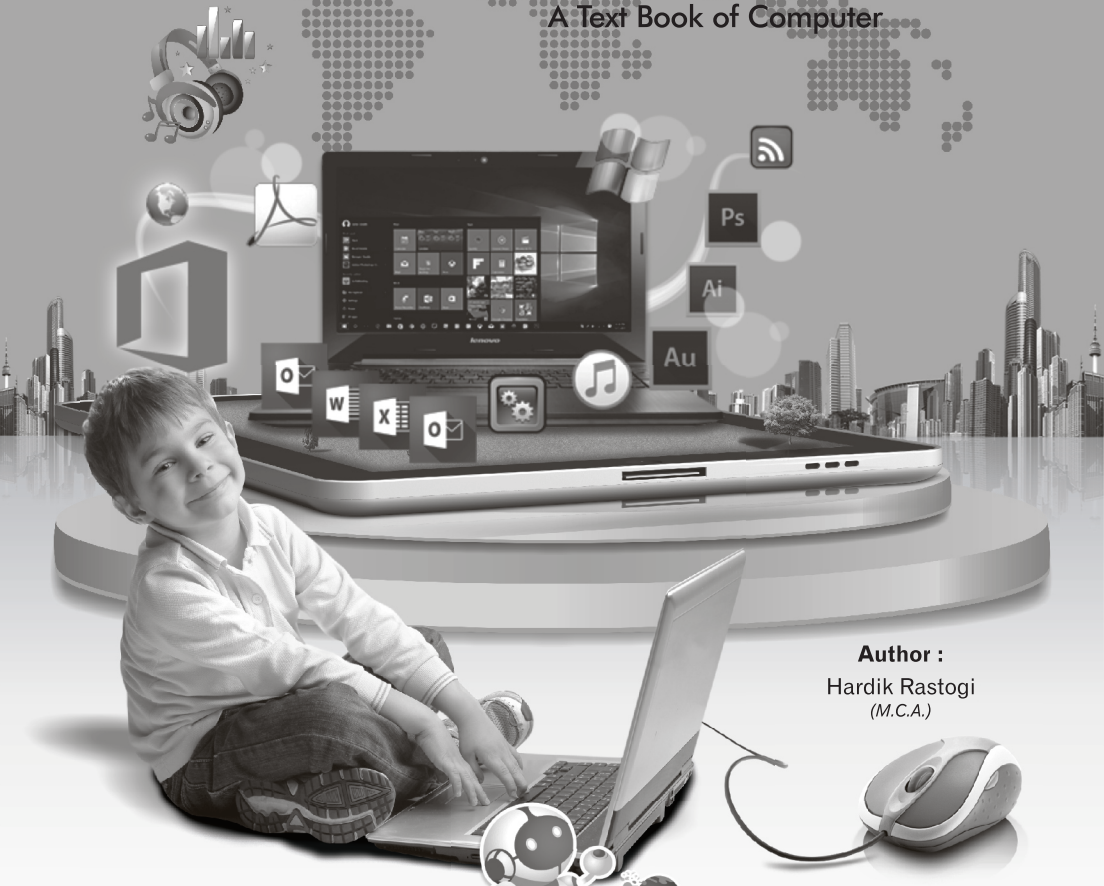
KIMAYA
Nurturing childhood with Divine Power

Cyber WORLD

A Text Book of Computer



Author :
Hardik Rastogi
(M.C.A.)

HELP-KIT
6-8

WEB SUPPORT AVAILABLE
www.dhananandpublications.com

- E-LEARNING
- INSTRUCTOR'S HANDBOOK
- SOLVABLE QUESTIONNAIRE
- LESSON PLANS
- EXAM MAKER

Contents

Dhananand Publications LLP
405, Krishna Apra Plaza, Sector-18, Noida (U.P.)
Ph. : 0120-4117761, 09458078364
email : dhananandpublications@gmail.com
website : www.dhananandpublications.com

Computer Studies – 6

Chapter 1 — Understanding Computers

EXERCISE

A. Fill in the blanks.

1. 0 and 1 2. Spacewar 3. MIPS 4. IQ 5. Convey

B. Write T for true and F for False.

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

C. Answer the following questions .

1. Computer is an advanced electronic device that takes raw data as input from the user and processes these data under the control set of instructions and gives the result and saves output for the future use. It can process both numerical and text calculations.
2. A computer program is a collection of instructions that performs a specific task when executed by a computer.
3. A computer is free from tiredness, lack of concentration etc. It can work for hours without creating any error. It millions of calculations are to be performed, a computer will perform every calculations with the same accuracy.
4. Three limitations of computers are :

(i) **Dependency :** It functions as per user's instructions, so it is fully dependent on human being.

(ii) **No IQ :** A computer is a machine. It does not possess IQ of its own. It cannot take its own decision.

(iii) **No feelings :** A computer does not have feelings or emotions.

5. **Three applications of computers are :**

(i) **Education :** We need computers to teach and learn various subjects through multimedia CD-ROMS. Multimedia projector and power point presentations can be used to provide quality education and make learning fun-filled and interesting for students.

(ii) **Medicine :** Computers have become important part in hospitals, labs and dispensaries. They are used to keep records of patients and medicines. They are used for scanning and diagnosing different diseases.

(iii) **Communication :** By the help of computer we can communicate to the other person by various means such as E-mail, chatting etc.

D. Name the parts given below in the picture.

Do yourself.

Research Project

Make two lists where

(a) Computer is better than human being :

(i) Speed : No human being can compete to solve the complex computation, faster than computer.

(ii) Storage : It can store mass storage of data.

(iii) Diligence : It can work for hours without any break.

(iv) versatility : We can use computer to perform completely different type of work at the same time.

(v) Accuracy : It gives results with accuracy.

(b) Human being is better than computer :

(i) Unstructured problem solving : human being is better for solving for problems in which the rules do not currently exist.

(ii) Creative thinking : Human are spectacular at several things including pattern recognition, language abilities and creative thinking.

(iii) Non routine physical work : Performing complex tasks in 3-D space, from cleaning to diving to cooking etc.

(iv) Expressing emotions : computer cannot express emotions. Human beings expressing empathy, making people feel good, taking care of others etc.

(v) Undefined phenomena : human being can only decide what is relevant in a flood of undefined phenomena.

IN THE LAB

Do yourself

Chapter 2 — Using Windows 7

EXERCISE

A. Fill in the blanks.

1. Operating system 2. minimize 3. ellipses
4. Ripping 5. Control panel

B. Write T for true and F for false.

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

C. Match the following columns.

1. ..... c 2. ..... f 3. ..... d
4. ..... b 5. ..... a 6. ..... e

D. Answer the following questions.

1. An operating system is a software that manages computer hardware and software resources and provide common services for computer programs. It is the most important program that runs on a computer. Every genual purpose computer must have as operating system to run other programs.
2. When the matter contained in a window is more than its display area, the scroll bar is required. There are two types of scroll bars as per the matter appears in a window.
3. Notepad and calculator are two programs which consist of inbuilt menu in windows 7.
4. Windows media player is used to play and organize digital media files (audio and video) on a computer and Internet. We can listen to radio stations from all over the world, play and copy CD/DVD, create our own CD/DVD, and copy music and video to portable devices.
5. We can see the control panel in three views.
   (a) Category view
   (b) Large icons view

(c) Small icons view
where category view is the default view of control panel. We can select other views of control panel by clicking category switch view button.

Research Project

Ans. Differences between Windows and Linux :

(i) Linux is free and open source OS whereas windows is a commercial OS whose source code is inaccessible.
(ii) Windos is not customizable whereas Linux is customizable.
(iii) Linux provides high security than windows because Linux is open source.
(iv) Windows is user friendly in comparision of Linux.
(v) Linux was developed by Linus Torvalds whereas Windows OS was developed by Microsoft. Windows, I like most as it is user friendly in comparision of Linux.

Chapter 3 — More on MS Word 2010

A. Fill in the Blanks.

1. Word processor 2. Header 3. Editing
4. Thesaurus 5. text effects

B. Write T for true and F for false.

1. F 2. F 3. F 4. F 5. F

C. Match the following columns.

1. …… C 2. …… e 3. …… d
4. …… f 5. …… b 6. …… a

D. Answer the following questions.

1. MS Word 2010 is an important component of MS Office 2010. We can prepare letter, brochure, newsletter, report and web pages comfortably. Besides maintaining test data we can prepare graphical data with the help of various drawing tools.
2. It can consists of a title, date, page number, picture, name and anything we desire.
3. Sometimes we need to find some word or phrase in a document. We also need to replace this with some other text many times. It can be executed successfully with Find and Replace commands respectively.
4. The space that comes between textual data is referred as character spacing. We can adjust the positioning of characters by many options of MS Word. The character spacing can be adjusted and letters can be stretched or compressed.
5. When you read newspaper or a magazine, you would have noticed that first character of first paragraph starts by a large capital letter. It is referred as Drop Cap feature. It adds a decorative touch to the document.

Research Project

Do yourself

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 4 — Mail Merge in MS Word

EXERCISE

A. Fill in the blanks.

1. Mail Merge Facility 2. tabular 3. Field
4. Mailing 5. Record

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… b 2. …… d 3. …… e
4. …… a 5. …… c

D. Answer the following questions.

1. MS Word provides Mail Merge facility by which we can send the same letter to many ones but each with its specific name, address, city, telephone number, etc. Mail Merge allows you to create letters, labels envelopes and so on, each personally addressed to a different recipient.
2. Data source consists of mailing list, for example, name, address, city, pin, telephone number, etc. The data is organized in tabular form along with field names.
3. The data source is associated with the main document, so its field names can be used in the main document and it becomes easy to merge addresses along with the main document. Main document consists of common text part.
4. Merge fields are inserted in main document to insert the versatile information.
5. We can preview the letters to check that how output will come out at the time of printing. Use following steps to preview the letters.

   Before printing we should preview the merged letters. It confirms that merged fields are picking the right data. If it is not then we will have to check the back steps of wizard.

   Click on Preview results button in the Preview Results group on Mailings tab, or click on Next : Preview your letters (wizard step) under 'Step 4 of 6' section.

   The first record will be displayed. Click on Next Record button in the Preview Results group to view the next record of the data source.

Research Project

Do yourself.

In the Lab

Do yourself.

For Teachers

Do yourself.

Chapter 5 —MS Excel 2010

EXERCISE

A. Fill in the blanks.

1. MS Office 2. searched data, replace it
3. worksheets 4. range 5. Formulas

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… c 2. …… d 3. …… e
4. …… b 5. …… f 6. …… a

D. Answer the following questions.

1. MS excel 2010 is also a component of MS Office 2010 which is basically a spreadsheet software. Spreadsheet software is used to calculate on numerical data. Such type of a software consists of a large sheet in tabular format i.e. sheet is divided in rows and columns. We can create charts and graphs from the data in Excel and convey more meaningful information.
2. By default, an Excel workbook displays 3 worksheets at the bottom, with the names Sheet 1, Sheet 2 and Sheet 3.
3. Famous spreadsheet softwares are visiCalc, Lotus 1-2-3 and superCalc. These softwares were the most used softwares of their own time.
4. Cell references is the address by which any cell is identified. We can say cell reference as cell address also.
5. If multiple cells are not adjacent then they cannot be treated as range. Selecting such multiple cells would be done by another method.

   Click on the first cell.

   Hold down the Ctrl key and click in each additional cell you want to select.

Research Project

Do yourself

In the Lab

Do yourself

For Teachers

Do yourself.

Chapter 6 —Understanding MS PowerPoint 2010

EXERCISE

A. Fill in the blanks.

1. views, ideas 2. Insert 3. microphone
4. Adding movies 5. Slide transition

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… c 2. …… d 3. …… a
4. …… e 5. …… f 6. …… b

D. Answer the following questions.

1. Powerpoint is a software program that enhances oral presentation. It operates like an old-fashioned slide show but uses modern technology in the form of computers and digital projectors rather than a slide projector. MS Powerpoint is a powerful tool which helps us to communicate our views and ideas effectively using tables, diagrams,

photos, clip arts, sounds, colours, designs and animated special effects.

2. We can add the sound and our voice to slide. Sound can be added to a presentation through two ways like clip organizer and file.
3. Four presentation softwares are Customshow, Clearslide, Haiku Deck, SlideDog and Prezi Business.
4. You can animate text, graphics, charts and other objects on the slide by the help of custom animation. In custom animation, it may be decided that how an object will be appeared and when it will be. The text value can be customized in Powerpoint to appear letter by letter or word by word. The sound effect can also be added with this animation.
5. Effect options can be used for adjusting many of the transitions. You can choose the direction from where the slide need to be displayed.
   Click on the Effect Options command on the Transitions tab.
   Select the required effect from the drop-down menu.

Research Project

Do yourself

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 7 —Let Us Know QBasic

EXERCISE

A. Fill in the blanks.

1. switching, machine, language 2. QB64 3. Redo
4. constants 5. Relational 6. CLS

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… c 2. …… d 3. …… f
4. …… b 5. …… a 6. …… e

D. Answer the following questions.

1. The commands or instructions in QBasic are called statements. Various types of functions are implemented by the help of statements in a program. The following are the statements in QBasic.
   1. Assignment statement LET 2. Input statement INPUT
   3. Output statement PRINT 4. REM statement REM
   5. Conditional statement IF-THEN-ELSE
   6. Loop statement FOR-NEXT, WHILE-WEND, DO LOOP, GOTO
2. Constants are values stored in a program which do not change during the execution of a program. They are classified as numeric and string constants.
   Numeric constants : The numerals on which arithmetic operations can be performed are called numeric constants. These constants have

numbers and decimal point only. For example, 9750, 46.2, 0.67, – 425, – 0.025, etc.

String constants : Strings contain a sequence of characters in double quotation marks. These characters may be letters, numbers and symbols. It can also have a blank space. A double quote within a string is not allowed.

For example, “Vineet”, “124”, “reena 67”, “2*2 = 4”, ab@329”, etc.

3. A computer performs many arithmetic operations and calculations with the help of arithmetic operators. The basic arithmetic operators are given here :

Operator	Explanation
+	To add two or more numbers.
–	To subtract two or more numbers.
*	To multiply two or more numbers.
/	To divide two or more numbers.
^	To calculate Exponentiation value.

4. The operators are executed from left to right in any expression as per the hierarchy. Hierarchy defines the order in which the operators are executed in any QBasic expression. We use BEDMAS for the hierarchy of operation. The full form of BEDMAS is :

B	Brackets	()	
E	Exponentiation	^	
D	Division	/	Same Priority
M	Multiplication	*	
A	Addition	+	Same Priority
S	Subtraction	–	

5. The REM statement does not get displayed in the interpreter. This command helps to add comments or remarks to a program without affecting its flow. These remarks are usually added at the beginning of the program to show what the program is about.

Research Project

IF THEN Statement

This statement is used for making decision on comparisons.

IF THEN ELSE Statement

This statement is the expansion of statement IF .... THEN.

```
REM PROGRAM TO FIND THE GREATER NUMBER
CLS
INPUT “ENTER TWO NUMBERS;”; N1, N2
IF N1 > N2 THEN PRINT “GREATER NUMBER IS;”, N1
IF N1 < N2 THEN PRINT “GREATER NUMBER IS;”, N2
IF N1 = N2 THEN PRINT “BOTH NUMBERS ARE EQUAL”
END
```

IN THE LAB

```
10 CLS
20 INPUT "ENTER YOUR NAME AND AGE"; NAM $, AGE
30 PRINT "My name is"; NAM $; "I am"; AGE; "years old"
40 END
10 CLS
20 INPUT "ENTER THREE NUMBERS:"; N1, N2, N3
30 SUM = N1 + N2 + N3
40 AVG = SUM/3
50 PRINT " Average ="; AVG
60 END
```

Do yourself

```
10 CLS
20 INPUT "ENTER TWO STRINGS:";
STR1$, STR2$
30 STR $ =  STR1 $ + STR2 $
40 PRINT STR $
50 END
```

For Teachers

Do yourself

Chapter 8 — More on QBasic

EXERCISE

A. Fill in the blanks.

1. human being 2. INPUT 3. Decision making
4. Pixels 5. Color command

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… e 2. …… c 3. …… a
4. …… b 5. …… d

D. Answer the following questions.

1. A programming language has very different properties from spoken language. Spoken languages are used by human beings. These can be understood in a much flexible way compared to a programming language. A human being understand some description by many ways because his understanding has flexible ways to process something. Computer is a machine. It understands something through machine language because it is a switching dead machine only.

   It makes its process of understanding very rigid so a flexible slang statement has the whole opportunity to confuse the computer. By this reason a programming language has its specific keywords and syntax with strict grammatical rules.

2. GOTO statement is used to transfer the program control from one statement to another in a QBasic program.

   Syntax : [Line No.] GOTO<Line No>

3. IF THEN ELSE statement tackles the conditional statement when the given condition is FALSE. ELSE construct will be executed in case of condition is FALSE.

   Syntax : IF <condition> THEN <statement1> ELSE <statement2>

4. The number of pixels horizontally and vertically determines the resolution of the display. A good resolution means more pixels. The more pixels, the clearer is the object appearing on the screen.

   Resolution is specified as Column Value × Row Value. For example, the resolution could be 320 × 200, 640 × 200, 640 × 480, 800 × 600 or any other.

   The most common resolution is 640 × 480. You have to first set the resolution to specify how many pixels can be displayed on the screen.

5. When simple commands are used in QBasic then these commands show the output in black and white. The black, white and grey colours are the default colours. If you want to show something colourful then you will have to use COLOR command for this purpose.

   Syntax

   COLOR <Colour Number>

   Example :

   COLOR 4

   PRINT "Colourful Output"

   Colour mode is first changed to red colour, and then the given text will be printed in red colour.

Research Project

Do yourself

In the Lab

```
10 CLS
20 N = 1; SUM = 0
30 IF N < 6 THEN GOTO 40 ELSE GOTO 80
40 INPUT "ENTER NUMBER:"; N1
50 SUM = SUM + N1
60 N = N + 1
70 GO TO 30
80 AVG = SUM/5
90 PRINT "Average is:"; AVG
100 END
10 CLS
20 INPUT "ENTER AMOUNT:"; AMT
IF AMT < 500 THEN
PRINT "ZERO DISCOUNT"
ELSE IF AMT > 500 AMT AND ≤ 3000 THEN
PRINT "10% DISCOUNT"
DISCOUNT = 0.1 * AMT
ELSE IF AMT > 3000 AND AMT ≤ 10000 THEN
PRINT "20% DISCOUNT"
DISCOUNT = 0.2 * AMT
PRINT "25% DISCOUNT"
```

```
DISCOUNT = 0.25 * AMT
END IF
NET = AMT – DISCOUNT
PRINT “The Bill amount is:”; NET
END
CLS
INPUT “Enter the First number”; a
INPUT “Enter the second number”; b
INPUT “Enter the third number”; c
If a > b AND a > c THEN
PRINT “The greatest number is”; a
ELSE IF b > a AND b > c THEN
PRINT “The greatest number is”; b
ELSE
PRINT “The greatest number is”; c
ENDIF
END
10 CLS
20 N = 2
30 If N ≤ 20 THEN GOTO 40 ELSE GOTO 70
40 PRINT N
50 N = N + 2
60 GOTO 30
70 END
```

For Teachers

Do yourself

Chapter 9 —Internet and E-mail

EXERCISE

A. Fill in the blanks.

1. Tin Berners Lee 2. Services 3. chat
4. search engines 5. sign in, log in

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… b 2. …… d 3. …… e
4. …… f 5. …… c 6. …… a

D. Answer the following questions.

1. Internet is the largest network of the world by which information is shared to all people of the world.
2. The World Wide Web is a large computer network where by using a browser such as Mozilla Firefox, Internet Explorer, you can surf and get information. It consists of all the public websites connected to the Internet worldwide, including the client devices (such as computers and cell phones) that access web contents. The websites are identified

by short, unique, global identifiers called URLs (Uniform Resource Locator).

3. E-Commerce stands for Electronic Commerce, *i.e.,* commercial activities over Internet. Internet offers us convenient ways to shop from our home or office for almost everything like air/rail/movie tickets, clothes, electronic items, books, gifts etc. We can buy or sell new or second-hand goods also.
4. We need E-mail account to use E-mail. After haivng E-mail account we can send E-mail message to the E-mail address of the receiver. For example, gurmindery@yahoo.com is an E-mail address, in which gurminder is the username, yahoo.com is the domain name.
5. If you want to send a copy of the same message to some other people, enter their E-mail addresses in Cc (Carbon copy) field.

   If you went to send the same message to other people without letting them know of the fact that others also have received the same message, type their addresses in Bcc (Blind carbon copy) field.

Research Project

Many times we want to see something on some desired topic but we cannot see because we do not know the name of related websites. It makes a cumbersome situation for us. In that case Search Engines may be helpful for us. We can find the desired subject material on Internet by the help of search engines without knowing the exact name of websites. They can locate any desired material like website, image, news, questions and answers, video, etc. There are many search engines like Google, Bing, Yahoo, etc. for which websites are google.co.in, bing.com and yahoo.co. in sequentially. Follow these steps to search any information. Let us say, we want to search the images of "Deforestation" on Internet.

Open any search engine say www.google.co.in. Click on the Images tab. Type 'Deforestation' and click on Search button.

A list of images will be displayed. Select the image you like.

ARPANET was the first network in arisen of Internet and it was started in 1969.

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 10 —An Overview of Windows 8

EXERCISE

A. Fill in the blanks.

1. 26 October, 2012 2. start 3. New type security
4. DVD-Video 5. CHARMS

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… b 2. …… f 3. …… e
4. …… a 5. …… c 6. …… d

D. Answer the following questions.

1. On 26 October, 2012, Windows 8 released for general availability in people. It is a personal computer operating system which is part of the Windows NT family. Windows 8 introduced major changes to the operating system's platform and user interface. It improved its user experience on tablet, where Windows is taking competition with other mobile operating systems like Android and iOS. On 17 October, 2013 Microsoft released an upgraded version of Windows 8 which was referred as Windows 8.1.
2. Windows 8 provides heavier integration with online services from Microsoft and other companies. A user can now log into Windows with a Microsoft account, which can be used to access services and synchronize applications and settings between devices. Windows 8 also ships with a client app for Microsoft's SkyDrive cloud storage service, which also allows apps to save files directly to SkyDrive.
3. Windows 8 is available in three different versions and these are Windows 8, Windows 8 Pro and Windows 8 Enterprise. Windows 8 and Windows 8 Pro were sold at retail in most countries and as preloaded software on new computers. Each edition of Windows 8 includes all of the capabilities and features plus additional features oriented towards their market segments. For example, Windows 8 Pro added BitLocker, Hyper-V for taking ability to join a domain and the ability to install Windows Media Centre as a paid add-on. Users of Windows 8 can purchase a Pro Pack that upgrades their system to Windows 8 Pro through Add features. The users of Windows 8 can avail Windows Media Centre and DVD playback support by the help of this. Windows 8 Enterprise contains additional features aimed towards business environments.
4. Once you log in, you will see the new Windows 8 Start Screen. This screen is agreed as the home page of your Windows 8 PC.

   The Start Screen is used in windows 8 in place of start menu and is treated as new program launcher.

   The Start Screen displays tiles that represent apps, people, programs. shortcuts and more.

   You can customize and personalize the Start Screen to your tasks.
5. It is a bar which is included newly in Windows 8. You can access it by moving the mouse pointer in the top right button corner of the screen. It has five options, like, Search, Share, Start, Devices and Settings. If you press Window + C keys then it can be awaken.

Research Project

Popular operating system :

- Windows 7 is the most popular operating system for desktop and laptop computers.
- Android is the most popular smartphone operating system.
- iOS is the most popular tablet operating system.
- Variants of Linux are most widely used in the Internet of things and smart devices.

- Other variants of Linux are the most popular operating system on other web servers and super computers.

Characteristics of DOS

1. It is the primary system where the user will get an environment about the input and output deviates,*e.g.,*Monitor, Keyboard, Printers etc.
2. It is helpful in performing file management, *e.g.,* creating, editing, deleting files etc.
3. It is a single user operating system.
4. It is Character Based Interface System.

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 11 —Computer Ethics, Rights and Security

EXERCISE

A. Fill in the blanks.

1. Unethical, criminal 2. property 3. referencing
4. computer security 5. Personnel.

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… c 2. …… a 3. …… f
4. …… d 5. …… b 6. …… e

D. Answer the following questions.

1. Computer ethics defines collection of rules which states for a person what has to be done and not to be done.
2. Property is the part of property which connotes intangible creations of the human intellect and primarily includes copyrights, patents and trademarks. It also includes other types, moral rights and rights against unfair competition. It is illegal to use intellectual property without the permission of the owner or producer. The rights related to such literary or artistic work, inventions, discoveries, etc. are called intellectual property rights.
3. Copyright is a legal right that grants the creator of an original work exclusive right for its use and distribution. The writers publishers will not be benefitted in terms of money and other advantages and hence will be less motivated for continuing the hard work to develop material. The work of creative people must be protected by law so that they could keep exploring, thinking and inventing in an encouraging way. For this reason such materials are copyrighted by law.

   Typically the duration of a copy right spans the authors's life plus 50 to 100 years, i.e., copyright typically expires 50 to 100 years after the author dies, depending on the jurisdiction.
4. Computer security is the protection of computing systems and data that they store or access. It includes procedures and techniques that are designed to protect a computer from accidental or intentional

theft, unauthorized access or manipulation. Computer security is often viewed as a disaster for the user because it can cause serious damages to both the individual user and the organization such damages many include loss of revenue, valuable data, productivity and many more which may even lead to bankruptcy.

5. The people who are associated with computer crimes are often called Hackers, crackers, virus programmers, Breahers, Information warriors, etc.

   A hacker is a person who breaks into a computer system to get illegal access to the information stored there.

   A cracker is a person who breaks into a computer system just like hacker, with the intention to steal passwords, files or programs for unauthorized use.

   Virus programmers are like crackers who breach computer systems, in order to steal information or cause harm to computer systems.

Research Project

Do yourself

In the Lab

Types of computer networks are :

1. Personal area network
2. Local area network
3. Wireless local area network
4. Campus area network
5. Metropolitan area network
6. Wide area network
7. Storage area network
8. System area network
9. Passive optical local area network
10. Enterprise private network
11. Virtual private network

Computer ethics in school :

(i) Breaking copyright and software theft
(ii) Hacking
(iii) Improper use of computer resources
(iv) Breaches of information privacy and confidentiality
(v) Personal information on public computers may be available for inspection by others.

Four computer virus names are :

1. ILOVEYOU
2. Code Red
3. Melissa
4. Sasser

For Teachers

Do yourself

Computer Studies – 7

Chapter 1 —History of Computers

EXERCISE

A. Fill in the blanks.

1. Computer 2. machine code 3. transistors, capacitors
4. Fourth 5. Summit

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… c 2. …… f 3. …… d
4. …… e 5. …… a 6. …… b

D. Answer the following questions.

1. Abacus is treated as the first computing apparatus that was invented in 2700 BC. Napier Bones, Slide Rule, Analytical Engine were famous calculating machines of previous time.
2. Punched cards, paper tape and magnetic tape was used as input and output devices.
3. The main features of second generation are :
   - Use of transistors
   - Reliable in comparison to first generation computers
   - Smaller size as compared to first generation computers
   - Generated less heat as compared to first generation computers
   - Consumed less electricity as compared to first generation computers
   - Faster than first generation computers
   - Still very costly
4. Some computers of Fourth generation were :
   DEC 10 STAR 1000
   PDP 11 CRAY-1 (Super Computer)
5. In the fifth generation, the VLSI technology became ULSI (Ultra Large Scale Integration) technology, resulting in the production of microprocessor chips having ten million electronic components. The generation is based on parallel processing hardware and Al (Artificial Intelligence) software.
6. AI is an emerging branch in computer science, which interprets the means and method of making computers think like human beings. All the high-level languages like C anc C++, Java, . Net etc., are used in this generation.
   AI includes :
   Robotics
   - Neutral Networks
   - Game Playing
   - Development of expert systems to make decisions in real life situations
   - Natural language understanding and generation

Research Project

List of super computers which are faster at world level
Sunway Taihulight—China
Tianne-2 (Milkyway-2)—China
Piz daint—Switzerland
Titan—United states
Sequoia—United states
Cori—United States
Oakforest-PACS—Japan
K computer—Japan
List of Indian Supercomputers
Pratyush (cray × C40)
Mihir (cray × C40)
InC 1–Lenovo C1040
SERC—Cray × C40

In the Lab

- Do yourself
- We can use Python, Prolog, Java, C++ and LISP programming languages in the field of artificial intelligence.
- Do yourself

For Teachers

Do yourself

Chapter 2 —Hardware and Software

EXERCISE

A. Fill in the blanks.

1. dead 2. hardware 3. software
4. software 5. MS world

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… c 2. …… f 3. …… d
4. …… b 5. …… a 6. …… e

D. Answer the following questions.

1. Computer that it is only a dead machine and it cannot work by its own. Human beings has to make effort for taking work by computers. Human beings will be required to give right instructions for getting right output from computer. Basically computer works on the principle of GICO (Garbage IN Garbage Out).
2. ENIAC, one of pioneer computers was so large that it had occupied two room space. Human beings needed to enter in it to work on this computer.
3. There are numerous types of operating systems in the market like Windows, Linux, Ubuntu, Solaris and OS/2.
4. The application software are those programs, which are written to do our actual tasks. For example, programs written for calculating

salaries of employees of an office, keeping account of all transactions, printing different types of reports, maintaining the stock inventory, preparing letters and documents, etc., are called application software. We can ourselves develop the application software or can get it prepared by a programmer on payment. Alternately, we can purchase the application software from the market. In the market such application software are generally available, with the help of which we can do most of our tasks.

5. In Excel, we can also create charts of many types based on the data filled in worksheets.
6. Utility softwares are used for other tasks related to a computer system. These tasks may be removing viruses, taking backup, cleaning garbage files and taking help for networking purpose, etc. These utilities are also used for rectifying errors in processing and solving our problems.

Research Project

Six input devices :

(i) Keyboard	(ii) Image scanner	(iii) Microphone
(iv) Pointing device	(v) Sound card	(vi) Video card

Six output devices :

(i) Monitor	(ii) Printers	(iii) Plotters
(iv) Projector	(v) Head phone	(vi) Speaker (S)

In the Lab

List of hardware devices

(i) Motherboard
(ii) Central Processing Unit (CPU)
(iii) Random Access Memory (RAM)
(iv) Power supply
(v) Video card
(vi) Hard Drive (HDD)
(vii) Optical Drive (e.g. DVD/CD drive)
(viii) Solid State Drive (SSD)

Importance of CPU

(i) CPU performs basic arithmetic such as addition, subtraction, multiplication etc at at very high speeds.
(ii) The CPU makes logic decisions based on simple comparison.
(iii) The CPU "multitasks", switching constantly among the several dozen programs running on your PC.
(iv) A CPU spends a great deal of its time moving data from one place in memory to another.
(v) The CPU sends signals to control the other parts of the computer.
(vi) The CPU is both the heart and brains of every computer.

- Utility software is system software designed to help to analyze, configure, optimize or maintain a computer. Five utility softwares :

(i) **Antivirus software :** The software which is used to detect and remove the malwares from our computer system is known as antivirus software.

(ii) **Disk Defragmenter :** The process which reduces the fragmented space in the disk is called the defragmentation.

(iii) **Disk Cleaner :** These are the programs in built in OS to find and delete unwanted files from the computer to free the disk space.

(iv) **Compiler :** For making the program executable a programming language uses a program to transform the source code written in programming language into machine language code is known as compiler.

(v) **Backup software :** It helps in the creation of a backup of the files on your computer. Most computer use a hard disk drive for storage.

For Teachers

Do yourself

Chapter 3 —Knowing Number System

EXERCISE

A. Fill in the blanks.

1. Aryabhatt 2. 10 3. binary
4. special 5. A, F

B. Write T for true and F for false.

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

C. Match the following columns.

1. ..... e 2. ..... f 3. ..... b
4. ..... c 5. ..... a 6. ..... d

D. Answer the following questions.

1. Number system is the system by which counting, arithmetic operations are done using specific digits.
   Numbers used in particular number system defines the base of that number system.
2. Decimal number system uses ten digits. Our all numbers are makde with these ten digits. Our most arithmetic operations are also occurred with these decimal numbers. 10 digits are used so base of decimal number system is 10.
3. Computer is switching machine so it understands two states only; ON and OFF. These two states can be represented by 1 and 0 also. Binary number system is suitable for computers because it consists of 0 and 1 only. Bi means two so it uses two digits to denote all numbers, i.e., the base of Binary number system is 2. All digital computers use this number system and convert the data input from the decimal format into its binary equivalent.
4. Computer understands the alphabetic and other information like special characters with the help of 0 and 1. This is due to American Standard Code for Information Interchange (ASCII). It consists of 256 notations to change its binary equivalent.
5. The technique used to add binary numbers inside the computer is very easy and simple. This is performed in the same way as you perform addition with decimal numbers. The following table illustrates the addition of two binary digits.

a	b	a + b = c
0	0	0 + 0 = 0
0	1	0 + 1 = 1
1	0	1 + 0 = 1
1	1	1 + 1 = 10

When we add two binary numbers they carry over 1 is shifted to the next place as it happen in decimal number addition.

For example

Compute $(1010)_2 + (101)_2$

$$\begin{array}{r} 1010 \\ +\ 0101 \\ \hline 1111 \end{array}$$

Research Project

Do yourself

In the Lab

(i) Number system : A number system is a collection of various sysmbols which are called digits.

(ii) Different types of number system

1. Binary number system
2. Decimal number system
3. Octal number system
4. Hexadecimal number system

(iii) Numbers used in particular number system defines the base of that number system.

(iv) Computer arithmetic can also be done using these number system.

(v) Decimal number system is the most common number system.

Octal addition can be done just as we do number in any base.

(i) Octal digits range from 0 to 7.

(ii) Add two corresponding digits. If the total exceeds 7 then subtract 8 from the result and then "carry the 1" that means add 1 to the digit to the left.

For Teachers

Do yourself

Chapter 4 —Windows 7

EXERCISE

A. Fill in the blanks.

1. Operating system 2. Library 3. control panel
4. Fonts 5. Sticky keys

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… c 2. …… e 3. …… d
4. …… f 5. …… b 6. …… a

D. Answer the following questions.

1. Windows 7 is the most popular operating system of the world and it is due to many remarkable facilities to end user, specially in the field of data management. Here Documents folder and Windows Explorer is used to locate your files and folders. Documents folder is more convenient for viewing a folder or window at a time. Files are viewed, explored and organized by Windows Explorer in a computer. We can see the directory structure through Windows Explorer. That structure includes drives, folders and files.
2. Click on Start > Open Windows Explorer

   or

   Click on Start > All Programs > Accessories > Windows Explorer

   The window of 'Windows Explorer' is divided into two panes left and right. The left pane displays the disk drives and folders in a hierarchical order.

   The right pane displays the contents of drive/folder that is selected in the left pane.
3. Control Panel enables you to make changes in the appearance and current settings of Windows. It is a system folder. Control Panel includes the following options.

   Appearance and Personalization of the desktop.

   Hardware and Software Set up and Configuration.

   System and Security.

   Networking and Internet.

   User Accounts and Family safety.

   Setting Clock, Language and Region.

   These settings control nearly everything regarding Windows looks and works. They allow you to set the Windows in a desired way.
4. Use the following steps to use on-screen keyboard with the help of mouse.

   Open application/program in which you want to use keyboard.

   Select Start > All Programs > Accessories > Ease of Access and Click on On-screen Keyboard option.

   A virtual keyboard will be displayed on the screen as given in the figure below.

   Click on the desired key buttons and application/program will take it as key suppressions.
5. You can follow these steps to activate the feature from Windows :

   Select Start > Control Panel > Ease of Access > Ease of Access Centre

   Select Make the keyboard easier to use option. Activate Turn on Sticky Keys by clicking on the checkbox.

   Click on OK to apply the setting.
6. Following these steps to put your computer in sleep mode.

   Select Start > Control Panel.

   Click on System and Security option of category. Click on Power Options category appeared window.

   Select the Power saver option, Sleep mode will become active. To

make further changes, click on Change plan settings option and select the desired settings.

Research Project

A better way to minimize all your windows with one click is to click the show desktop button located at the extreme right side of the taskbar. Five differences between windows 7 and windows 8.

- When you log in to windows 8, the first screen you see is the new 'Start Screen' which has tiles while in windows 7 we have icons.
- Windows 8 comes with an antivirus program called 'Defender'.
- Windows 8 doesn't have a start Menu. Instead it has a 'chairs bar' which is where you go to shut down and we other tools such as 'search'.
- Windows 7 has good gaming platform whereas windows 8 is not recommended for games.
- Windows 7 uses basic internet explorer for browsing whereas windows 8 has updated internet explorer.

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 5 —Formula and Functions in MS Excel

EXERCISE

A. Fill in the blanks.

1. = 2. Constants 3. Cell references
4. SQRT (number) 5. Insert function

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… d 2. …… a 3. …… e
4. …… f 5. …… b 6. …… c

D. Answer the following questions.

1. MS Excel provides a large range of facilities to manipulate and analyze numerical data. Formula is one of them. Formulas are used to perform all arithmetic calculations which involve two or more cells. Formulas are used to perform addition, subtraction, multiplication and division. A formula is an expression that uses cell address, number, arithmetic operator and parenthesis. We can perform simple and complex calculations using Functions. Formula must begin with '=' symbol followed by cell references and operators.
2. Compound formulas are used when you need more than one operator. For example : to calculate the Simple Interest using the formula 'P*R*T/100'.
3. Text values can also be used in Formulas and these can consist of all alphabetic characters, numeric values and special characters.

   These values can be added or concatenated. The text value are enclosed in double quotes. The symbol and (ampersand) is used to do concatenation.

For example : typing = "Amar" and "Sharma" in the formula bar will produce the result as Amarsharma.

4. Mixed reference is a reference that refers to a specific row or so column. It is used when only either only row or only column is being changed. Both approaches are used so it is referred as mixed reference. A good example of mixed reference is multiplication table.
5. An Excel Workbook consists of three worksheets by default named as Sheet1, Sheet2 and Sheet3. We can put name to an existing or new tab according to following steps :

   Right click on the 'Sheet2' tab in the worksheet.

   A popup menu appears. Select the Rename option.

   Cursor will be appeared in tab. Type the desired name like good_sheet and press the Enter key.

   You will see that name of sheet has been changed.
6. Functions are used to perform calculations using arguments. Arguments show the used cells in a particular order. These functions eliminate the chance to write wrong formulas. After process on arguments functions return values. The values related to arguments are given within parenthesis.

   A function always starts with equal sign (=) followed by the function name. Arguments are specified within parenthesis and these are separated by commas. Example : The SUM function takes the sum of two numeric values entered in other cells of worksheet.

Research Project

There is IF decision making function used in excel :

(i) The IF function.

(ii) It uses the following relational operators : is equal to, is greater than

We can show some numeric values with currency symbol.

On the Home tab, in the Number group, click Accounting number Format. If you want to show a currency symbol other than the default, click the arrow next to the accounting number format button and then select another currency symbol.

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 6 —Analyzing Data in Excel

EXERCISE

A. Fill in the blanks.

1. Excel 2. Category axis 3. column
4. sorting 5. Filtered

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… c 2. …… d 3. …… b
4. …… e 5. …… a

D. Answer the following questions.

1. Excel has large potential about analyzing data through many facilities. These facilities are not only textual but also graphical. Data can be sorted, filtered in Excel besides making charts. Charts can be of many types to show the data in graphical way. Graphical representation are more easier to understand compared to a textual information. Charts provide more accurate analysis of information.
2. Charts are pictorial representations of data. They are used for analyzing the data. When a user changes the data, chart automatically changes. It allows to see the effect of problem after change in data. The trends and relationships between series of numbers can also be studied with the help of charts.
3. The various components of a chart are :
   (i) Chart Area. (ii) Category Axis. (iii) Value axis. (iv) Legend
4. Different types of charts are available in Excel. They are Column, Bar, Line and Pie charts.
5. When user arranges the given data according to a particular field either in ascending order or descending order then it is referred as sorting data.
6. It filters the selected cells of worksheet according to the selected values of a column. You should used the following steps to use Auto Filter.
   Click on the Data tab.
   To apply a filter to a range of cells, first select the cells. Then, click on the Filter option the Sort and Filter group.
   An arrow appears in each column heading. Select the desired value and filtering criteria after clicking the arrow in a column heading. The data is filtered on that value. That is, only the rows containing the selected value are displayed.

Research Project

Do yourself

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 7 —Learning QBasic

EXERCISE

A. Fill in the blanks.

1. GIGO 2. BASIC 3. John G. Kemeny and Thomas E. Kurtz
4. Color 5. LINE 6. ellipse arc

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… d 2. …… c 3. …… f
4. …… e 5. …… a 6. …… b

D. Answer the following questions.

1. Programming languages is the media by which human being gives

instruction to the computer. Programming languages are of many types. BASIC is a language invented in 1964 which is used by beginners mostly. Its constructs are easy and increases logical learning of user. If one learns BASIC perfectly then learning other language is not a cumbersome task.

2. The value of Constant is remain unchanged during whole execution of program. These are of two types. Numeric constants and character constants.

   A variable is a meaningful name of data storage location in computer memory. It holds the value and continue until another value is assigned to it. A variable has a type, which is defined by the kind of value it holds. It is of two types Numeric variable and string variable.

3. A comma displays different elements of the output at a gap of approximately 8-10 characters.

   Syntax : PRINT <Text>, <Text>

   If there is a comma after the text ("Amit") and a new PRINT command is written after the comma (PRINT "I live in Delhi"), the output of second PRINT command starts from the previous line after leaving a space of 8-10 characters.

4. IF THEN STATEMENT : is used for making decisions based on the result of comparison. The IF command has to be followed by THEN command and lastly END IF construct.

   Syntax : IF <CONDITION> THEN <STATEMENT> END IF

   If the condition is TRUE, then the instruction(s) specified after "THEN" is executed. If the condition is FALSE, the control shifts to the ENDIF ignoring everything after the THEN statement on that line.

   IF…THEN…ELSE STATEMENT : is also a conditional decision making statement which executed something else when condition is false. If the condition is false then the construct after ELSE part will be executed.

   Syntax : IF <Condition> THEN <Statement> ELSE <Statement2> END IF.

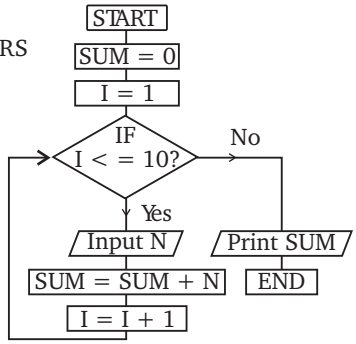
5. DRAW statement is used to make drawing from a fixed point which is set with PSET command. A creater can move around the screen by the help of this and draw straight lines in eight directions without specifying any pixel coordinates.

   Syntax : DRAW <Direction string>

Research Project

```
REM FIND SUM OF 10 INPUT NUMBERS
CLS
SUM = 0
FOR I = 1 TO 10
INPUT N
SUM = SUM + N
NEXT I
PRINT SUM
END
```

Equivalent Flow Chart



In the Lab

- CLS
  INPUT " Enter your name"; NAME $
  INPUT " Enter your age"; AGE
  INPUT " Enter your class"; CLASS $
  PRINT " Your name is : "; NAME $
  PRINT " Your age is : "; AGE
  PRINT " Your class is : "; CLASS $
  END
- CLS
  INPUT "Enter the string" ; STR $
  IF STR $ = "Hello" THEN
  PRINT "Right Password"
  ELSE
  PRINT "Wrong Password"
  END IF
  END
- SCREEN 7
  COLOR 5, 14
  CLS
  PRINT "Circle in QBASIC"
  CIRCLE (100, 100), 50, 1
  END
  PLAY “e8 d8 c8 d8 e8 e8 e4”
  PLAY “c8 d8 e8 f8 g8 a8 b8 c4”
  END

For Teachers

Do yourself

Chapter 8 —Repeating Tasks in QBasic

EXERCISE

A. Fill in the blanks.

1. Loops 2. FOR…NEXT 3. one
4. nine 5. WHILE 6. DO…LOOP WHILE

B. Write T for true and F for false.

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

C. Match the following columns.

1. ……. c 2. ……. d 3. ……. a
4. ……. b 5. ……. f 6. ……. e

D. Answer the following questions.

1. QBasic offers mainly four types of loops t repeat the tasks. Loop is a repetition technique where a counter variable is used to count the number of tasks. It is initialized with some start value and incremented by 1 after each iteration. It is compared with total repetition value when an iteration completes the counter variable’s

value will be equal to total repetition value and the loop will be terminated.

2. Purpose of Flow Chart
    1. It provide people with a common language or reference point when dealing with a project or process.
    2. People use Flow charts to represent ideas in a graphical manner.
3. FOR…NEXT is the most popular loop of QBasic due to its advantageous construct. It is agreed as the most time saving command. It saves both programming and processing time. This loop is generally used when user exactly knows the number of iterations before executing the loop. The process of repeating a program segment in a loop can be simplified and controlled by using FOR…NEXT statement.
4. When FOR…NEXT statement is used within another FOR…NEXT statement then it is known as Nested FOR…NEXT loop. The loop which encloses another loop is referred as outer loop and another loop is referred as inner loop. You can have, levels of nested loop i.e., loop in loop in loop…9 times.
5. Many times we want to run a loop while a condition remains true. In such case WHILE…WEND statement is used.

    Syntax : WHILE <condition<

    {Statements to be repeated}

    WEND
6. Many a times you want to run a loop minimum one time irrespective of loop condition. After running one time loop checks the condition and repeats the task till condition remains true. DO…LOOP WHILE statement is used for this purpose.

Research Project

```
CLS
INPUT "ENTER ANY NUMBER"; N
C = 0
FOR I = 1 TO N
IF N MOD I = 0 THEN C = C + 1
NEXT I
IF C = 2 THEN
PRINT N; "IS PRIME NUMBER"
ELSE
PRINT N; "NOT A PRIME NUMBER"
END IF
END
```

In the Lab

```
CLS
INPUT "ENTER ANY NUMBER"; N
IF N MOD 2= 0 THEN
PRINT N; "IS EVEN NUMBER"
ELSE
PRINT N; "IS ODD NUMBER"
```

```
ENDIF
END
10 CLS
20 INPUT "ENTER YOUR NAME :"; NAME $
30 INPUT "ENTER YOUR SURNAME :"; SURNAME $
40 FULLNAME$ = NAME$ +" " + SURNAME$
50 PRINT "FULL NAME IS : "; FULLNAME $
60 INPUT "Do you want to continue; press Y or N"; CHOICE$
70 IF CHOICE$ = "Y" GOTO 20 ELSE GOTO 80
80 END
CFLS
INPUT "enter a number"; n
WHILE n < > 0
r = n MOD 10
s = s + r
n = INT (n/10)
WEND
PRINT "The sum of digits ="; S
END
```

For Teachers

Do yourself

Chapter 9 —Adobe Photoshop

EXERCISE

A. Fill in the blanks.

1. Adobe Photoshop	2. Bitmap, vector	3. photoshop
4. Magnetic Lasso	5. Color palettes	6. Stamp

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… d	2. …… a	3. …… e
4. …… f	5. …… c	6. …… b

D. Answer the following questions.

1. Adobe Photoshop is image creating an editing software which provides mass facilities to perform image creation and manipulation. Adobe is the name of company which has created this software. You can edit and manipulate the colour, brightness and contrast of photographs in a easy way and without any loss in quality. You can create the image file of less size which can be shared, loaded and opened in less time. The three dimensional pictures can also be created in Photoshop. You can remove unwanted parts of drawing.
2. Bitmap images are made up of pixels which are tiny squares in real while.

   Vector Images are made up of lines and curves. Mathematical objects that are used to describe these are called vectors. A vector image can be easily made larger or smaller without any loss in quality. This is

because a vector image is made up of mathematically defined objects, rather than by a pattern of pixels.

On the other hand, since Bitmaps are made as the size of a bitmap, requires a complete rearrangement of these pixels, changing pixels. Hence, enlarging these images always results in a loss of quality, making them appear blurry or even pixelated.

3. You can select the parts of the object with magic word tool. Parts should have same colour. You should use the following steps to use this tool.

   Select the tool by clicking it.

   Hold Shift key and click on the parts of object. As you click more, you select more parts of object. You can select a part of object with one click.

4. Lasso Tool allows the free-hand selection of a part or the entire image. There are three types of Lasso tools. These are Lasso tool, Polygonal Lasso tool and Magnetic Lasso Tool.
5. Objects can also be drawn in Photoshop like Paint with the help of drawing tools. Right click on the Shape tool to get the related tools.

   A drop-down menu will be displayed. User can select the desired tool to draw the shape from it.
6. Gradient Tool gives different shades to the background. These can either be used with different shades of one colour, or a combination of many colours.

Research Project

Adobe Flash Player is computer software for using content created on the Adobe Flash platform, including viewing multimedia contents, executing rich internet applications and streaming audio and video. It can run from a web browser as a browser plug – in or on supported mobile devices. It was created by Macromedia and has been developed and distributed by Adobe systems. Flash Player is distributed as freeware or in china, as adware.

Advantages

(i) Cross-browser compatibility
(ii) Image replacement for special fonts
(iii) Interactivity
(iv) Better expression through Animation

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 10 —More About Photoshop

EXERCISE

A. Fill in the blanks.

1. Photoshop 2. pre-loaded 3. 1988, John knoll
4. Layers Palette 5. Filters

B. Write T for true and F for false.

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

C. Match the following columns.

1. ……c 2. …… e 3. …… b
4. …… a 5. …… d

D. Answer the following questions.

1. Photoshop provides large facilities to users. (i) We can use custom shape tools to incorporate desired shapes in your files. (ii) Special art effects can be applied.
2. Custom shape tools are pre-loaded shapes to generate desired outcome.
3. ADVANTAGES OF WORKING IN LAYERS

   By using layers, it becomes very easy to separate parts of an image and edit one part without affecting the other parts.

   Layers can be used for reference and we can avoid including them in the final image.

   Working in layers helps you to move the new image around, resize it, and do whatever you like without affecting the original image.

   One can easily create multiple versions of a layer and try out different effects in each layer. This helps in keeping the original image intact while making a separate layer to work with.
4. Layers Palette is used to manipulate layers by all aspects. It lists all the layers and layers effects in an image. We can select, rename and view layers by the help it. We can add, hide, link and delete layers with its various tools.
5. Using Layers Menu by selecting Layer from the menu bar. Select Arrange option from the appeared menu. A sub-menu will be appeared. Select the related menu option to change the order of desired layer.
6. Filters are also important part of Photoshop. Filters are used to clean up or retouch photos, apply special art effects, add light effects and distort or transform images. All built-in-filters from Adobe are contained in Filters menu.

Research Project

Do yourself

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 11 —Using Internet

EXERCISE

A. Fill in the blanks.

1. Internet 2. WWW 3. microblogging
4. Larry Page, Sergey Brin 5. Virus 6. Antivirus software

B. Write T for true and F for false.

1. T 2. T 3. T 4. T 5. T

C. Match the following columns.

1. …… c 2. …… f 3. …… e 4. …… a 5. …… b 6. …… d

D. Answer the following questions.

1. Michael Bauer is the owner of Internet.
2. A blog is an easy-to-create website that allows users to share their thoughts with the world. The word "blog" comes from "Weblog" because a blog consists of a signed and dated log of individual postings. The topic of the blog can be anything, from personal to professional.
3. Every E-mail program provides an address book by which E-mail addresses can be stored.
4. A newsgroup is referred to cyber community which is dedicated to the discussion of a particular topic of interest. Current events are nearly referred as newsgroups. These topics may be from computers to research, politics to humanities, etc. You can join any time a newsgroup and become part of a huge conversation between thousands of people.

   A mailing list is a system by which a group of people can have a discussion via e-mail. The idea is that a person can send a message to one central address. That message is then processed by a program which automatically sends a copy of the message to each subscriber on the list in the form of e-mail message. Subscribing and unsubscribing to mailing list is easy. Each list has a special administrative address. You have to send only a message to that address saying that you want to subscribe or unsubscribe.
5. SPYWARE is also a type of malware that is installed on computers and collects information about users without their knowledge. Spyware monitors secretly various activities of users and can collect various information about users such as internet surfing habits, visited web page, etc. It sends this information in background to someone else. Sometimes these programs change the internal settings by which connection speed becomes slow and programs execute in wrong way.
6. Four antivirus programs are :

   Norton Antivirus, McAfee Virus Scan, AVG Antivirus and PC-Clilin.

Research Project

1. Gandcrab Ransomware : Gandcrab is ransomware spread through malvertisements, explicit websites, or spam emails, which lead the user to Rig Exploit kit Page. Once ransomware is active on the system, it starts to gather user's personal information such as username, keyboard type, OS version etc.
2. Magniber Ransomware : Magniber is spread through malvertisements infected websites that redirects user to Magnitude exploit kit page. It starts encrypting the data and files wiht the use of a unique key.
3. Thanatos Ransomware : It's a new computer virus named 'Thanantos', which is distributed through malvertisements, spam emails with malicious attachments and file types etc. The most complicated part is to decrypt the data been encrypted by this ransomware.

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 12 —A Sight on Windows 10

EXERCISE

A. Fill in the blanks.

1. Windows 10 2. upgraded 3. Bitlocker
4. plain-vanilla 5. Cortona 6. Shut down, restart

B. Write T for true and F for false.

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

C. Match the following columns.

1. …… c 2. …… d 3. …… b
4. …… f 5. …… a 6. …… e

D. Answer the following questions.

1. Windows 10 is an operating system for personal computers, tablets, embedded devices and internet devices.
2. Organizations and users can pick and choose how they will patch and update Windows 10. Users can access a Windows 10 upgrade through the Windows Update Assistant to manually being an upgrade or wait for Windows Update to offer an upgrade when it is set to run.
3. 16 GB for 32-bit OS, 20 GB for 64-bit OS is required for running windows 10.
4. Cortona shows up in Windows 10 as a search pane on the taskbar. It is also referred as the Windows Phone Assistant. We can trigger it by saying 'Hey Cortana' when you start searching the Start menu. We can search it and locate apps we have, installed, document we have access to, apps we could install from the store, search results from the web and a range of other information including from apps and services that integrate with Cortona.
5. We can resize the command prompt window in Windows 10. We can use familiar keyboard shortcuts to copy and paste at the command prompt.
6. Restart through the Start Menu.

   Step 1 : Tap the lower-left Start button to open the Start menu.

   Step 2 : Click the Power Options button on the top middle and select Restart in the list.

Research Project

Do yourself

In the Lab

Do yourself

For Teachers

Do yourself

Computer Studies – 8

Chapter 1 — Networking in Computers

EXERCISE

A. Fill in the blanks.

1. Computer network 2. clients or nodes. 3. Transmission media 4. Router 5. WAN 6. Star

B. Write T for true and F for false.

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

C. Match the following columns.

1. — c 2. — f 3. — d 4. — b 5. — a 6. — e

D. Answer the following questions.

1. ATM is a device that is related to computers of bank. Any person can withdraw money from ATM then this transaction will be equivalent to a situation where one person withdraw money from Teller in bank office personally.
2. Many times several computers are connected to a big computer, in such a way as all computers can communicate with each other through the main computer. In this condition, the main computer is called the server and all the remaining computers are called clients or nodes. All these computers are collectively called a workgroup. Such networks or workgroups are quite common these days.
3. A network card is used to attach a computer physically to network. NIC is also referred as LAN card or Ethernet card. By the help of this computer can participate in network communication. Now a days most of the computers come within inbuilt card.
4.

Router	Gateway
Router is a device used to connect two non-identical networks. It is used to route the data across different parts of the network when the computers are connected in WAN (Wide Area Network). Routers are generally classified to two types : Static routers and dynamic routers.	Gateway is a device used to connect two dissimilar LANs. It is required to convert data packets from one protocol format to another before forwarding it.

5. **LAN**
   (i) It is designed for a small area (maximum up to 1 kilometer).
   (ii) It supports less number of users. However different LANs can be connected together to increase the number of users.
   (iii) Generally a single person or single organization owns LAN.
   (iv) It requires relatively inexpensive communication media. It does not require special device like modem, repeaters, etc.
   (iv) It provides quite high data transmission rate.

   MAN
   (i) It is designed for a mid-sized area (maximum up to 80 kilometers).

(ii) It supports more number of users.
(iii) Owner may be a single person or group of many persons.
(iv) It requires expensive communication media like fibre or microwave. Many times it requires special devices like modem and repeaters.
(v) It also provides a high data transmission rate.

6. Every computer in this topology is connected to its nearest computer in such a way that entire system forms the shape of ring. A special signal token travels around the ring visiting every node and provides chance to every node to transmit data. This token indicates that line is ready and free to send data. A node can send its data when it gets this token. The communication path may be unidirectional or bidirectional.

Research Project

	System	**Bit Rate**
(i)	Telephone twisted pair	33.6 – 56 kbps
(ii)	Ethernet twisted pair	100 Mbps, 10 Mbps
(iii)	Cable Modem	500 kbps – 4 Mbps
(iv)	Optical Fiber	> 1600 Gbps

LAN can be used for a small area.

In the Lab

Do yourself.

For Teachers

Do yourself.

Chapter 2 — MS Access 2010

EXERCISE

A. Fill in the blanks.

1. data 2. dBase, Fox Pro 3. Tables 4. Reports 5. As the name suggests, it 6. Primary key

B. Write T for true and F for false.

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

C. Match the following columns.

1. — b 2. — c 3. — f 4. — a 5. — d 6. — e

D. Answer the following questions.

1. Data is considered as raw facts, information is interpreted as prepared outcome, or we can say information is prepared after processing of data in desired direction. Data can be agreed as a source of information also.
2. There are three types of DBMS.

   Hierarchical DBMS : A DBMS is said to be hierarchical DBMS, when the data is organized like a tree structure. It simply represents the data using parent-child relationship.

   Network DBMS : A DBMS is said to be Network DBMS, when it organizes the data in a network structure. A Network DBMS will have many-to-many relationship.

Relational DBMS : A Database Management System is said to be relational if it is based on Relational model. A relational database is a collection of data organized and described in terms of related tables from which data can be accessed easily.

3. A relational database stores vast amount of data, but queries help us to retrieve the filtered data based upon some conditions. Queries are also used to perform actions, such as delete, update, etc., on the data, based upon some criteria (conditions).
4. Some popular RDBMS are Ingers, Informix, Oracle, Visual FoxPro and Sybase.

Specialities of MS Access

5. (i) A large information is broken into smaller parts so that it can be easy to access the information.
   (ii) Access provides the sharing of data. Various users can access the information according to their needs from the same database.
   (iii) Access provides a great security towards data and maintains integrity. So that data can be consistent and reliable.
   (iv) Data redundancy (Duplication of Data) is reduced in MS Access. It is done through relationship using common fields in tables.
6. One of the easiest ways to create a table is to use a template. A template is a ready-to-use database that contains various types of tables, queries, forms, etc. needed to perform a specific task.

Research Project

Creating form for entering data in tables of database

Select the table or query for which you want to create form.

(i) Click on the create tab on the Ribbon. Select the form option in the forms group.
(ii) A new form is created and opens in Layout view, in which you can change the appearance of a form. You will notice that three new tabs : Design, Arrange and Format appear in the Ribbon.
(iii) If you want to edit or enter data in the form, click on the Home tab > View button > Form View.
(iv) Use the Record Navigation bar to move through the records in the form.
(v) After finishing the data entry, save your work by clicking on the Save option in Quick Access Toolbar or the Save option in the File tab. You will observe that the Form object gets added in the Navigation Pane.

In the Lab

Do yourself.

For Teachers

Do yourself.

Chapter 3 — Tables in Access

EXERCISE

A. Fill in the blanks.

1. cell 2. Data types 3. Auto number 4. design 5. datasheet 6. Shift + Tab

B. Write T for true and F for false.

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

C. Match the following columns.

1. — e 2. — d 3. — b 4. — c 5. — f 6. — a

D. Answer the following questions.

1. A field is the collection of information of one type for all entities related to table.
2. **Memo field :** Stores text and numbers up to 65,536 characters. It is used for descriptive fields.
3. We should follow these steps to save a table's records.
   (i) Click on Home tab.
   (ii) Click on Save button of Records group.
4. **Deleting Field in a Table :** We can delete the field from table using following steps.
   (i) Select the column by clicking on the column header and press the Delete key or right click on the column and select the Delete Field option from the context menu.
   (ii) A dialog box appears, asking for your confirmation. Click yes to confirm the deletion. Click No if you want to cancel the deletion.
5. **Deleting Field in Structure of Table :** We can delete a field in design view using the following steps.
   (i) Select the field which you want to delete.
   (ii) Click on the Delete Rows option on Tools group on the Design tab.
   (iii) MS Access will display a warning box that will confirm you to delete the field permanently. Click on Yes button.
   (iv) The field will be deleted from the table.
6. **Sorting Data in a Table :** We can sort data within a table with respect to a particular field either in an ascending or descending order. To sort the data, follow the steps given below :
   (i) Select the field that you wish to sort.
   (ii) Click on the drop-down arrow next to the right of the field.
   (iii) Select either Sort Smallest to Largest or Sort Largest to Smallest option from the drop-down list. Observe the change in the database.

Research Project

Do yourself.

In the Lab

Do yourself.

For Teachers

Do yourself.

Chapter 4 — Working with Queries and other Components

EXERCISE

A. Fill in the blanks.

1. Query 2. logical 3. five 4. common 5. query wizard, query design
6. form

B. Write T for true and F for false.

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

C. Match the following columns.

1. — c 2. — a 3. — d 4. — f 5. — b 6. — e

D. Answer the following questions.

1. A Query is a database object that helps to retrieve and view information from anyone or more database tables that meet a specific condition or criteria we define.
2. Let us take an example. In the student info table, we have records of class XII as well as class X students. Suppose we want to extract the records of only class XII students, or the records of class X students scoring more than 90 marks; we can find this with the help of queries. Queries are made on tables and the result of a query is also displayed in form of a table. The result we get is a group of rows and columns with the set of records that matches the given condition.
3. Relationships are used to access data from more than one tables. These tables are used to link on the basis of some common field, after that these can be accessed together. After defining relationship between tables, data from two or more tables can be used by Query, Form and Report. Relationship works on the basis of matched values from used tables for common field(s). When a relationship is set between two tables, there is a chance to use primary key in one table and foreign key in another table. Primary key identifies unique records in table while foreign key has the value to match the primary key of another table.
4. The tables selected for query displays their fields. We can select desired fields of these tables to make query. Double click on the field or drag field of table to Design Grid located at lower part of window. Added fields will decide the size of information.

   Or property is used to set multiple criteria in a query.
5. **Geting Query output by specifying the multiple criteria** : We can specify more than one conditions to specify multiple criteria. We should follow the given steps to specify multiple criteria.

- Suppose you want to see the records of students who live in Ghaziabad and Panchkula. Move the cursor to the Criteria row and type the condition = "Ghaziabad" in City field. Type another condition = "Panchkula" in Or row of the same column.
- Save the query and click on the Close button.
- Now run the query to see the output.

6. Access provides three main views in which a form is displayed.

- **Form View** is used to enter or edit data. Data can also be viewed on it.
- **Design View** is used to adjust the design of form. It gives you a more detailed view the structure of form.
- **Layout View** is used to change the look and feel of a form.

Research Project

Do yourself

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 5 — Adobe Photoshop CS6

EXERCISE

A. Fill in the blanks.

1. Adobe Photoshop 2. Thomas Knoll 3. Tools Panel 4. Resolution
5. Lasso 6. crop

B. Write T for true and F for false.

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

C. Match the following columns.

1. — c 2. — d 3. — f 4. — e 5. — a 6. — b

D. Answer the following questions.

1. Adobe Photoshop is the full name of Photoshop software and it is a graphics editing program developed by Adobe Systems. Photoshop is widely used by millions of graphics artists, web developers, photographers as well as common people. Most of the posters, magazine covers, book covers, brochers, etc. have been created or edited with Photoshop. Because of the popularity of this software, it has been agreed as the legacy among its users.
2. **Features of Photoshop CS6**

   There are numereous features of Photoshop that make it a unique and sound skilled software.

- It has revised user friendly interface.
- It can do photo editing and photo manipulation in less time and with little effort.
- It has powerful tools to enhance or change the colour of an image by adjusting the brightness and contrast, colour balance, hue and situation levels, and curves, etc.
- Layer effects preserve the original state of an image while manipulating another version of it through another layer. We can add as many layers as we need.

3. Workspace contains the image that you want to edit. It is also known as image window or document window.
4. The name of any four selection tools are Marquee tools, Lasso tools, Crop tool and move tool.
5. Different Marquee tools are :

- **Rectangular Marquee Tool :** To make a selection in a rectangular shape.
- **Elliptical Marquee Tool :** To make a selection in an elliptical or a circular shape.

  Single Row Marquee Tool : To make a selection as a row.

  Single Column Marquee Tool : To make a selection as a column.

6. The Crop Tool is used to select a desired area that you want to emphasize and removes all unselected area. We should follow these steps to select the area using Crop Tool.

- Open the desire image that you want to crop.
- Photoshop places a crop box automatically and shows the dotted line around the image.

We can crop the part of the picture using anyone of given two ways.

- We can drag the handles to confirm the desired part of image.
- We can drag the mouse to confirm the desired part of image.

After selecting area, we will see the area outside cropped area as dark.

- We should press the Enter key or click on the Commit button in the context menu to remove the unwanted area of image, i.e., crop the image.
- We can press the Escape key or click the cancel button in the context menu to cancel the cropping.

E. Label the Tools panel of Adobe Photoshop CS6 given below.

Do yourself.

Research Project

Refer to Text book Page No. 55, 56.

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 6 — More on Adobe Photoshop CS6

EXERCISE

A. Fill in the blanks.

1. Alt 2. Transform 3. Drawing 4. 25 5. opacity 6. black

B. Write T for true and F for false.

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

C. Match the following columns.

1. — d 2. — e 3. — a 4. — f 5. — c 6. — b

D. Answer the following questions.

1. We can copy a part of image to some another location in same image using given steps.

- Open the concerned image where you have to do the copy operation.
- Select an area using the Marquee or the Lasso Tool.
- Select the Move Tool from Tools panel.
- Press the Alt key and drag the selected part with holded key. Selected part will be copied to another location.

2. A brush in Photoshop can be up to 999 pixels wide.
3. Often we are required such shapes that are used in regular ways for various purposes such as tick mark, scissor, copyright symbol and animal paw, etc. These are drawn using Custom Shape Tool in the form of preset shapes.
4. we can select a foreground and background colour using Color Picker

Tool. Upper box shows the currently selected background colour while lower box displays the background colour. The default foreground colour is black while default background colour is white. The painting, filling shapes and drawing strokes (lines) are done using the foreground colour. The erased areas of an image are filled by background colour.

5. A gradient uses two colour's mixing for making a blend and fill this in object as a colour. Gradient Tool fills gradient in a part of object as selected or complete layer. Gradient types are Linear, Radial, Angle, Reflected or the Diamond.

   We should follow given steps to use Gradient Tool.

   - Open image file where you have to use the Gradient Tool for gradient fill.
   - Select the area of image where you have to use the gradient fill by using any selection tool.
   - Select the Gradient Tool.
   - Click on Gradient sample box in the Context menu. The Gradient Editor dialog box will be appeared.
   - We can use a readymade gradient by selecting a preset gradient fill or you can create a new gradient fill in the Gradient Editor dialog box.
   - Click on the OK button. Now you have created or accessed a gradient fill to use.
   - Select the desired gradient type in the Context menu.
   - Now take the mouse over the selected area and place it where you want to set the start point of gradient and drag it to define the end point.

6. We can write the text in different styles and shapes. It is referred as warping text.

Research Project

Spot healing brush tool :

It quickly removes blemishes and other imperfection in your photos. It works similarly to the healing brush. It paints with sampled pixels from an image or pattern and matches the texture, lighting, transparency and shading of the sampled pixels to the pixels being healed. Unlike the healing brush, the spot healing brush doesn't require you to specify a sample spot. The spot healing brush automatically samples from around the retouched area.

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 7 — Visual Basic

EXERCISE

A. Fill in the blanks.

1. Visual Basic 2. event driven 3. design 4. code 5. Label 6. F5

B. Write T for true and F for false.

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

C. Match the following columns.

1. — b 2. — f 3. — d 4. — e 5. — a 6. — c

D. Answer the following questions.

1. Microsoft developed Visual Basic in May, 1991. Beginners prefer Visual Basic due to its easiness. Visual Basic is also liked by professionals due to ease of developing softwares. It provides you a Variety of tools to create applications in desired way matching all real world situations. Visual Basic is a third generation event driven programming language and Integrated Development Environment (IDE). It makes application with higher user interaction which consists of toolbars, menus, command buttons, dialog boxes, icons and pointers, etc.
2. In event driven programs, the statements are not executed in the same sequence in which they are written. They only get executed when a corresponding event occurs.
3. A Visual Basic program can be made in three modes for different purposes. These are as following.

   Design Mode : In this mode, a program is created. Various tools and objects are initiated here and logical statements are written for desired events. Programmer plays an important role in design mode.

   Run Mode : In this mode, the created program is run by end-user and application executes. It performs the tasks for which it has been programmed.

   Break Mode : A program may not give desired results in some situations or it may be erroneous also.
4. **Solution Explorer :** This window displays a list of forms and other objects that constitute the application. This list is organized in the form of a branching structure like Windows Explorer. To open any object, we can double-click on its icon in the Solution Explorer window.
5. Properties are the attributes that defines the appearance and behaviour of objects (forms and other Controls). Forms have many properties such as Name, Font, Color, Border Style, Padding Size, Text, etc. Properties window is used to set the properties of forms and other controls placed on them.
6. Text Box is box like shape and it is used for getting the input value from user. Text and numbers both type of values can be entered in Text box control.

   Name–The Name property identifies a text box while writing the program.

   Text–This property contains the text which is displayed in the text box.

Research Project

Refer Text book on chapter 8 for answer.

In the Lab

Do yourself

For Teachers

Do yourself

Chapter 8 — More on Visual Basic

EXERCISE

A. Fill in the blanks.

1. Images, Graphical 2. Normal 3. VB Script 4. Dim 5. \ 6. OR

B. Write T for true and F for false.

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

C. Match the following columns.

1. — c 2. — f 3. — d 4. — b 5. — a 6. — e

D. Answer the following questions.

1. We can add the image in a VB application too. Image control, i.e., Picture Box control is used for this purpose. It shows a rectangular boundary after adding it to form. We should use the picture property for specifying an image.

2.

Size Modes	Description
Normal	This is a default size mode of Picture Box. In this mode, picture is positioned in the upper-left corner of the Picture Box and any part of the picture that is too big for the Picture Box is clipped.
Stretch Image	This size mode is used to stretch or shrink the picture as to fit to the Picture Box.
Auto Size	This size mode automatically resizes the Picture Box to fit the picture.
Center Image	This size mode displays the center area of the picture in the Picture Box.
Zoom	This is used to stretch or shrink the picture to fit in the Picture Box. However, the aspect ratio in the original is maintained as it was.

3. It is advised to users that they should declare the variables in explicit way. It is referred as explicit declaration. For making it, user should use Option Explicit before declaring the variables.
4. Logical operators are used to combine two or more conditions and result is evaluated according to the various combination of conditions.
5. If... Then... Else Statement

   If statement is used for making decisions based on comparisons. If the conditions is true then the statements written after THEN are executed. In case of opposite result statements written after ELSE are executed, i.e., the condition becomes false in this case.

   Syntax : If <condition> Then
   VB Statement (s)
   Else
   VB Statement (s)
   End If
6. For Next Statement is used to repeat a set of statements a fixed number of times. A counter is used to count the number of executions in this loop.

Syntax : For <counter> = <Initial Value> To <Final Value>
VB Statements
Next
For example, if we want to display first 10 numbers then we will write the following statement.
For Print Num = 1 to 10
Next

Research Project

Do yourself.

In the Lab

Do yourself.

For Teachers

Do yourself.

Chapter 9 — Understanding HTML

EXERCISE

A. Fill in the blanks.

1. Internet 2. IBM 3. Opening (<), Closing (>) 4. 64 5. Empty 6. Attributes

B. Write 'T' for true and 'F' for false.

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

C. Match the following columns.

1. — c 2. — d 3. — e 4. — a 5. — f 6. — b

D. Answer the following questions.

1. Internet is critical part of human life due to its usage in all areas of human life such as education, entertainment, industry, job, sports and market, etc. Internet is a medium by which human can share the data and information across the globe instantly. The servers share their data and information resources available on the Internet with the clients. They rely on servers for files, devices, processing power, etc.
2. HTML is a complete code package that enables a user to create web pages. It includes text and graphics. We can add links to your web pages. Hyperlinks are the highlighted text segments or images that connect a page to other pages on the web. Its fill form is Hypertext markup language.
3. The <HEAD> is the first element contained inside the <HTML> element. It contains no text within itself.
4. Heading tag is used to define different heading levels in the HTML document.
   There are six heading levels (H1 to H6). H1 heading style displays the text in the largest size and is used for main heading, the text increases to 24 pt font size. The lowest level H6 reduces the font size to 8 pt. The lower levels are used for the sub headings and less important things.
5. Any text which consists of many lines should be enclosed with <P> tag. <P> tag is used to make paragraphs in web page. A paragraph is ended by </P> tag. A paragraph can be aligned with the help of Align attribute. Various values used for Align attribute are as following.
   Syntax : <P> It starts a new paragraph.
   <P Align="Center"> It aligns the text to the center.

<P Align="Right"> It aligns the text to right.
<P Align="Left"> It aligns the text to the left side.
<P Align="Justify"> It aligns the text evenly between both left and right margins.

6. The bold tag is used when you want to emphasize the text. Type <B> before typing the text which you want to display as bold and type </B> after the text.
   Example : <B> CYBERMIND </B>.

Research Project

Moving text can also be displayed on webpage using MARQUEE tag.

Syntax : <MARQUEE> (Moving Text) </MARQUEE>

The masquee tag comprises of many attributes such as width, height, behavior and bg color etc.

Hyperlinks to other pages:

Links are specified in HTML using the <a> tab.

A link or hyperlink could be a word, group of words or image.

< a href ="url"> Text link

The href attribute in source anchor specifies the address of the destination anchor.

In the Lab

Do yourself.

For Teachers

Do yourself.

Chapter 10 — Advanced HTML

EXERCISE

A. Fill in the blanks.

1. Font 2. face value 3. Bg color 4. Unordered 5. ordered 6. MARQUEE

B. Write 'T' for true and 'F' for false.

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

C. Match the following columns.

1. — c 2. — f 3. — e 4. — b 5. — a 6. — d

D. Answer the following questions.

1. **Changing Type of Font :** We can change the font type using FACE attribute of FONT tab. Type FONT FACE = "Value" to perform it where value reflects the name of the font; e.g., <FONT FACE = "Cooper Black">.

   Changing Font Colour : The font color attribute is used to change the font colour of the text. The colour can be set by providing colour name or colour code as value of font colour attribute. Type <FINT COLOR = "?"> before the text and replace "?" with colour name or colour code.

2. We can change the background colour of web page using Bgcolor attribute of Body tag. In the <BODY> tag, type BG COLOR = "?", replacing? With the colour name or a colour code.
   Syntax : <BODY BGCOLOR = "?">

3. The website should be designed by a person with a strong sense of graphic design in order to make it visually appealing for the users.

4. There are some more attributes of Body tag which are used to change the top margin and left margin of web page. These attributes are TOPMARGIN and LEFTMARGIN.
5. Unordered list is used when sequence has not so important when describing points. The default bullet type for most of the browsers is disc (small filled black circles), before the list of items. The list begins and ends with <UL> and </UL> tags respectively.

   The ordered list is used to create a list with listing items by numeric values. By default numeric values are shown as sequence of ordered list. But other sequential values are also used to shoe the items of ordered list such as (A, B, C), (I, II, III), (i, ii, iii), etc.
6. Moving text can also be displayed on web page using MARQUEE tag.

   Syntax : <MARQUEE> (Moving Text) </MARQUEE>

   The marquee tag comprises of many attributes wuch as Width, Height, Behaviour and Bgcolor, etc. Width attribute decides the screen width in which moving text will be displayed. Height attribute will determine the height of strip where message will be displayed. Behaviour attribute decides the behavour of text, i.e., how will the text be displayed. Bgcolor attribute decides the background colour of strip where moving text text will be displayed.

Research Project

Creating a table :

The basic structure of an HTML table consists of the following tags :

Table tags : <TABLE> </TABLE>

Row tags : <TR> </TR>

Cell tags : <TD> </TD>

Constructing an HTML table consists of describing the table between the beginning table tag, <TABLE>, and the ending table tag </TABLE>. Between these tags, we then construct each row and each cell in the row. We would first start the row with the beginning row tag <TR>, and then build the row by creating each cell with the geginning cell tag, <TD>, adding the data for that cell, and then closing the cell with the ending cell tag, </RT>. Then for each new row, we would repeat the process of beginning the row, building each cell in the row, and closing the row.

Image as hyperlink : We can make image hyperlinks. This is done by replacing the hyperlink href anchor text with some HTML image "ing" code

<img src = "images / sample - image.jpg"

title = "Example image link" width = "600"

height = "400" />

In the Lab

Do yourself.

For Teachers

Do yourself.

Chapter 11 — Introduction to C++

EXERCISE

A. Fill in the blanks.

1. high 2. constants 3. Modulus 4. Variables 5. Header files 6. Cout

B. Write 'T' for true and 'F' for false.

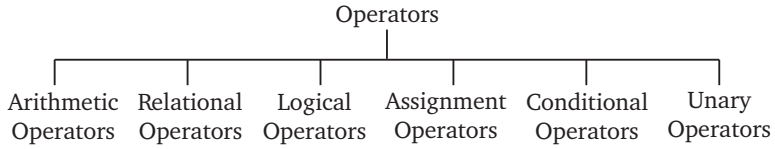
1. T 2. F 3. T 4. F 5. F

C. Match the following columns.

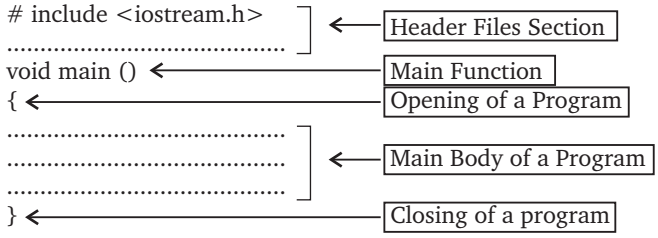
1. — f 2. — c 3. — e 4. — b 5. — a 6. — d

D. Answer the following questions.

1. C++ was developed by Bjarne Stroustrup in the early 1980s at ATL & T Bell Laboratories.
2.
   - An identifier consists of only alphabet, digits and/or underscore. Any other special character is not allowed.
   - It must not start with a digit.
   - Uppercase and lowercase letters are considered different.
   - It should not be a reserved word.
3. Operators are symbols which are applied on variables, i.e., operands for specific purposes. Various types of operators are listed below.



4. Relational operators are used to compare two values. These operators always return TRUE or FALSE on the basis of condition.
5. Variables are used to store values in memory locations of computer. These provide meaningful names for this purpose such as num, val, average, cust-id, etc. Each variable should be of a specific data type so that it can access and store the value of its specific domain such as char, int, float, etc.
6. Structure of C++ Program



Research Project

```
# include <iostream.h>
# include <conio.h>
void main ()
{
int num;
clrscr ( );
cout <<"n Enter a numbers:";
cin >> num;
if (num % 2 = = 1)
      cout << "/n num is odd";
else
      cout <<"/n num is even";
getch ( );
}
```

In the Lab

- ```
  # include <iostream.h>
  # include <conio.h>
  void main ( )
  {
  char name [50];
  int age;
  char school_name [100];
  cout <<"/n Enter your name";
  cin >> name;
  Cout <<"/n Enter your age";
  cin >> age;
  Cout <<"/n Enter your school name";
  cin >> school_name;
  cout <<" your name is :" <<name;
  cout <<"/n your age is :" <<age;
  cout <<"/n your school name is :" <<school_name;
  getch ( );
  ```
- ```
  # include <iostream.h>
  # include <conio.h>
  void main ( )
  {
        char name [50];
        cout <<"Enter your name" ;
        cin >> name;
        cout <<"My name is" <<name;
        getch ( );
  }
  ```
- ```
  # include <iostream.h>
  # include <conio.h>
  void main ( )
  {
        Clrscr ( );
        cout <<"/n +" ;
        cout <<"/n – – " ;
        cout <<"/n * * * " ;
        cout <<"/n / / / / " ;
        getch ( );
  }
  ```
- ```
  # include <iostream.h>
  # include <conio.h>
  void main ( )
  {
        int num 1, num 2, num 3;
        clrscr ( );
        cout <<"Enter first number";
        cin>> num1;
        cout <<"Enter second number";
        cin>> num2;
        num 3 = num 1 + num 2;
        cout <<"Sum is" << num 3;
        if (num 3 % 2 = = 0)
        cout <<" sum is even";
  else
        cout <<" sum is odd";
        getch ( );
  }
  ```

For Teachers

Do yourself.