

Tim@x

Approach to Computer

Teacher Manual



7



Teacher's Zone

- ★ *E-Book*
- ★ *Elucidated Solutions*
- ★ *Free Online Support*
- ★ *Test Framer*



GREEN BOOK HOUSE

(EDUCATIONAL PUBLISHER)

F-214, Laxmi Nagar, Mangal Bazar, Delhi-110092

Phone : 93547 66041, 93544 45227

E-mail : greenbookhouse214@gmail.com

Website: www.greenbookhouse.com

CLASS – VII

CHAPTER 1

- A** 1. b) 2. a) 3. c) 4. a) 5. a)
B 1. motherboard 2. overall 3. actions 4. disk drive
5. high powered 6. hardware and software
C 1. c) Non-conductive material 2. a) DRAM chips
3. b) Chipset 4. e) CU 5. d) DTE
D Motherboard Modem Network card
E **Hardware**

All physical parts of computer that can be seen and touched are known as computer hardware. Hardware can be internal and external. Examples: motherboard, CPU, keyboard, monitor, printer etc.

Software

The set of instructions that help us to operate computer are known as computer software. Without software, computer is a car without petrol. Both are necessary for each other. There are two main types of software:

1. System Software 2. Application Software

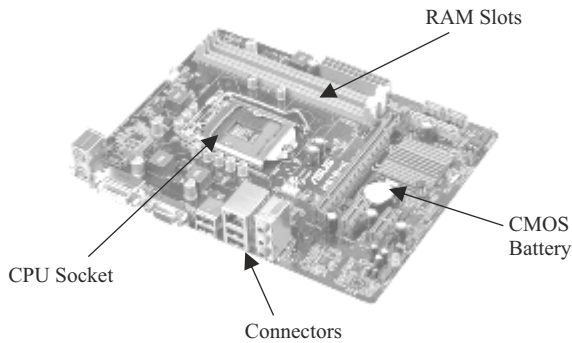
Examples: Windows, Linux, MS Word, Photoshop etc.

| F | 1. Software | Hardware |
|---|--|---|
| | <p>1. Software is the set of instructions or commands that help us to operate computer hardware.</p> <p>2. System and Application software are the two main types of software.</p> <p>3. Eg.: Windows, MS Office, Internet Explorer, Busy etc.</p> | <p>1. All the physical parts of computer that can be seen and touched are called hardware.</p> <p>2. Computer hardware can be classified into four categories- Input Unit, Output Unit, Processing Unit and Memory Unit.</p> <p>3. Eg.: keyboard, mouse, monitor, printer, CPU, RAM, HDD, CD etc.</p> |

2. The motherboard is printed circuit board that is the formation of a computer. It allows communication to the CPU, RAM and all other computer hardware components.
3. Central Processing Unit (CPU) is main part of a computer. It controls the overall functions of a computer. It is also called the brain of computer.
4. Disk drive is a device that reads and writes data to a disk. The most common type of disk drive is a HDD (Hard Disk Drive). CD/DVD Drive and Blu-ray Drive are also examples of disk drive.
5. Primary Memory is very important than secondary memory. It is called main memory because computer access the primary memory first or directly. It allows a processor to access running execution applications and services that are temporarily stored in a specific memory location.

Activity

A



B

| | | |
|-----|-----|-------|
| CPU | | |
| ALU | | CU |
| MU | | |
| ROM | RAM | CACHE |

CHAPTER 2

- A** 1. (c) 2. (c) 3. (a)
- B** 1. 7 2. 3 3. 3 4. 3
- C** 1. Number systems are the methods to represent numbers. Different symbols are used to represent different numbers in different numeral systems. For example, "11" represents the number Eleven(11) in decimal numbers and Three(3) in the binary numeral system(used in computers).
2. There are four number systems–
- (i) Decimal Number System that we use in our day to day life. It

has base 10 as it uses 10 digits from 0 to 9.

- (ii) Binary Number System that is used by computers. It has base 2 as it uses 2 binary digits 0 & 1.
 - (iii) Octal Number System that is also used by computers. It has base 8 as it uses 8 digits from 0-7.
 - (iv) Hexadecimal Number System is also used by computers. It has base 16 as it uses 16 digits distinct symbols to represent values 0-9, and "A"-"F".
3. Difference between decimal number system and binary number system are –

| Decimal Number System | Binary Number System |
|---|---|
| 1. We use decimal numbers in our day to day life. | 1. Computer uses binary numbers as it only understand binary number system. |
| 2. It has base 10 as it uses 10 digits from 0-9. | 2. It has base 10 as it uses 2 binary digits i.e. 0 & 1. |
| 3. Examples – 3, 5, 7 etc. | 3. Examples – 11, 101, 111 etc. |

Activity

Do yourself

CHAPTER 3

- A** 1. (a) 2. (b) 3. (b) 4. (c) 5. ©
- B** 1. defender 2. replicate / copy
- 3. spyware/malware 4. Multipartite 5. Pen
- C** 1. 3 2. 3 3. 3 4. 3 5. 7
- D** 1. Trojan Horse is a destructive program that pretend and look as genuine application but they are bad for computer system or network. They are not true viruses since they do not replicate. Example:- Backdoors, Trojan-Banker etc.
- 2. Worm is the most common types of malware. Worms typically harm computer networks by consuming bandwidth and overloading web servers. Computer worms are self- replicating. Examples:- W32.SillyFDC, MS Blast etc.
- 3. Spyware is a type of malware that aims to gather information about a person or organisation over internet, with or without their knowledge. Examples – Cool web search, Transponder etc.
- 4. Ransomware is a type of malicious software designed to block access to a computer system until a sum of money is paid. The first known ransom attack was initiated in 1989 by Joseph Popp named AIDS Trojan.
- E** 1. Virus can be spreaded through unsoliciated e-mails which contain infected file attachment. Virus will be activated if the user opens or downloads the attached file.

2. A boot sector virus is a type of virus that infects the boot sector of disks or the Master Boot Record (MBR) of hard disks. The first PC virus was a boot sector virus named as Brain, which was released in 1986 by the Farooq Alvi Brothers in Lahore, Pakistan.
3. A file virus is a type of malware that infects executable files with the intent to cause permanent damage or make them unusable. A file-infecting virus overwrites code or inserts infected code into a executable file. They infect program files with extensions like .exe, .com, .drv, .sys etc. Sunday and Cascade are examples of file Virus.
4. To protect a computer from virus, we need to–
 - (a) Install the latest and updated Antivirus & firewall programs.
 - (b) Scan the pen drive before using and also should not be used on infected computers.
 - (c) Junk or unknown e-mails should not be opened.

Activity

Do yourself.

CHAPTER 4

- A** 1. (b) 2. (c) 3. (c) 4. (c) 5. ©
- B** 1. right 2. AutoFill 3. Can't Repeat 4. Enter 3
- C** AutoFill is a very useful MS Excel feature. It allows you to enter a series of numbers or characters in a specified range of cells. For example type January and drag with auto fill handle February March April..... will be appeared automatically.
- D** 1. 7 2. 3 3. 3 4. 7 5. 3 6. 3
- E** 1. A spreadsheet is an electronic worksheet that is arranged in horizontal rows and vertical columns. It is used to do calculations.
2. There are varieties of advantages of using an electronic worksheet–
 - (a) We can store and manipulate data in the form of rows and columns.
 - (b) Electronic worksheets help us to do simple and complex calculations by using formulae and functions.
 - (c) Graphical representation of data can be created.
 - (d) These are easy to transport, copy or share.
 3. There are four types of data available in Excel–
 - (a) Text – can store alphabet, numbers and symbols.
 - (b) Number – can store integer and decimal numbers.
 - (c) Date – can store data in date format such as Dec 16, 2018 or 12/16/18.
 - (d) Formula is an expression to perform calculations. Formula always start with = equal to sign.

4. Pointing is the method of Excel to point and click on cell to add cell reference to a formula.
5. To select a cell or range of cells either we click and drag mouse pointer on desired range of cells or hold the Shift key and click on cell(s).

Activity

| Option | To do |
|-------------------------|--|
| Copy cells | To make duplicate copy |
| Fill series | To create series of numbers or pattern |
| Fill formatting only | To fill/copy only the formatting of the cell to another cell |
| Fill without formatting | To fill only series without considering the format of cells |
| Fill day | Fill series of days like– Sunday, Monday, or SUN, MON, TUE |
| Fill week days | Fill series of weekdays except weekends (Saturday & Sunday) |
| Flash fill | Flash Fill feature will complete the word based on the pattern you set. For example you type Hindustan and a cell C1, now whenever you are trying to type Hindu....., the word will complete itself. |

Activity

Do yourself.

CHAPTER 5

- A** 1. (a) 2. (c) 3. (c) 4. (c) 5. (a) 6. (a)
- B**
1. AVERAGE : Average () function is used to get average or arithmetic mean of given numbers.
 2. Min: Min () function is used to get the smallest number from given set of numbers.
 3. NOW: Now () function is used to insert current date and time. The NOW function takes no arguments and update automatically when a worksheet is changed or opened.
 4. IF: If () function is used to perform a logical test and return one value for TRUE result and different value for FALSE result. For example: =if(a1>70,"Pass","Fail")
 5. ROUND: Round () function is used to round up the number by given number of decimal points as arguments. For example: =ROUND(44.78,1) will result 44.8.
 6. SUM: Sum () function is used to perform the basic arithmetic

operation of addition. For example: =sum(a2:a10).

7. MAX: Max() function is used to get the largest number from given set of numbers.

C Difference between Arithmetic and Comparison Operator

| Arithmetic Operator | Comparison Operator |
|--|--|
| <ul style="list-style-type: none"> • Arithmetic operators are also called Mathematical operators. • Arithmetic operators are used to do Mathematical operations like addition, subtraction, multiplication etc. • Standard operators for mathematical calculations are: +, -, *, / and ^. | <ul style="list-style-type: none"> • Comparison operators are also called relational operators. • Comparison operators are used to compare values like greater than, less than, equal to, not equal to etc. • The result of comparisons can only be either TRUE or FALSE. Standard operators are: >, <, >=, <=, = and <>. |

- D** 1. 7 2. 7 3. 3 4. 3 5. 3

- E**
1. Steps to enter a formula–
 - Step 1: Place the cursor where you want to put formula.
 - Step 2: Type = sign.
 - Step 3: Type constant value or select cell reference.
 - Step 4: Type operator (Add(+), Subtract(-), Multiply(*), Divide(/).
 - Step 5: Type another constant value or select cell reference.
 - Step 6: Press Enter key.
 2. We can use SUM() function to quickly find sum of numbers.
 - Step 1: Place the cursor where you want to get sum.
 - Step 2: Type = SUM(starting cell reference : ending cell reference);
=SUM(g2:g10).
 - Step 3: Press Enter key.
 3. Functions are predefined formulae in a spreadsheet program. Functions are used to solve simple and complex calculations.
 4. Formula and functions are used to perform simple and complex calculations in spreadsheet software. A formula is an expression that consists of values, constants, cell references and arithmetical operators whereas functions are predefined formulae.

Example of formula: =(a2+b2)/3

Example of function: =sum(a2:a5)
 5. Some common errors in Excel are–
 - (I) #NAME:- It occurs if a formula is not recognised by Excel.
 - (ii) ##### :- It occurs if column width is not wide enough to

accommodate the value.

(iii) #VALUE:- It occurs if the formula contains invalid data.

(iv) #DIV/0 :- It occurs if a number is divided by zero.

Activity

Do yourself.

CHAPTER 6

A 1. b) 2. b) 3. a) 4. b) 5. b)

B 1.
2.

C 1. tag is used to add image in HTML document.

It is an empty tag.

Example:

SRC stands for source of the file.

2. The Border is used to specify the border around an image.

3. Alternative text is used with tag. ALT or alternative text specifies the alternative text. It will be displayed if the selected image is not displayed.

Example:

4. Attributes of tag are: Face, size and color

5.
 tag is used to break the line whereas <HR> tag is used to insert a horizontal line.

Activity

Do yourself.

CHAPTER 7

A 1. (b) 2. (a) 3. (a) 4. (b)

B

| Statement | Syntax | Purpose |
|-----------|---|-----------------------------|
| LET | LET A=5 | Assign Value |
| END | END | To end the program |
| INPUT | INPUT X OR INPUT "ENTER NUMBER", A | Accepts the value From user |
| CLS | CLS | Clear the Output Screen |
| REM | REM My First Program | To give comments |

- C** 1. ABS 2. MOD 3. INPUT
- D** 1. REM is used to give comments in a program. REM is not executable command.
LET is used to assign a value to a variable. LET A=10, LET C=A+B etc.
2. We can also apply conditions in a QBASIC program.
IF ... THEN command is used to apply conditions and take appropriate action in QBASIC with the help of comparison operators. Comparison operators return either TRUE or FALSE as result. If the condition is true the specific set of commands given just after the THAN will be executed and if the condition is false the program counter will jump after else or end if statement.
3. ELSE or ELSE IF statement is used to perform a secondary action if the first expression mentioned with the IF statement is false.
4. ELSE IF is a part of IF ...THEN statement that is used to perform multiple conditions. If the first expression mentioned with the IF statement is false and we wish to check another condition, ELSE IF is used.
5. Looping is a technique to repeat the execution of a statement or group of statements for a fixed number of times.
FOR – NEXT is a looping statement. For example, if you want to print “Good Morning” 5 times; instead of writing 5 print statements, you can use the looping statement.
Syntax
FOR a=1 to 5
Print “Good Morning”
Next a
6. DO WHILE LOOP and DO UNTIL LOOP are looping statements that are used to execute statements or group of statements for some number of times. The only difference between two loops is that in the Do While Loop, the execution of the loop continues as long as the condition is TRUE but in the Do Until Loop the execution of loop continues till the condition is FALSE.

Activity

1. REM To check and print
CLS
INPUT “ENTER A YEAR IN FOUR DIGIT”, Y
IF Y MOD 4=0 THEN
PRINT “It is a Leap Year”
ELSE
PRINT “It is not a Leap Year”
END IF
END

```

2. REM enter your age and check condition
CLS
INPUT "ENTER YOUR AGE", age
IF age >= 18 THEN
PRINT "You are eligible to Vote!"
ELSE
PRINT "Sorry, you are not eligible"
END IF
END

```

CHAPTER 8

- A** 1. (b) 2. (a) 3. (c) 4. (a) 5. ©
- B**
1. The World Wide Web is the system of connecting millions of computers around the world to share information.
 2. Communication is the process of sharing or exchanging messages, information, ideas or feelings.
 3. Research process is the process of searching for information on particular topic.
 4. Financial transaction is the term that is used for exchanging currencies/money.
- C**
1. Yes, I have visited www.google.com. Steps to visit a search engine—
Step 1 – Open any web browser like google chrome or Microsoft Edge.
Step 2 – Type www.google.com in address bar.
[home page will appear, type the keyword that you want to search in search box and click on search button]
 2. To get the address of a webpage we need to search it through a search engine.
 3. To access the webpage offline, we need to save the webpage. Once we saved the webpage, we can read it without an Internet connection.
 4. We see the links on a webpage to get the detail information.
 5. We can display a specific webpage by typing its proper URL on the address bar. Like www.greenbookhouse.com/productdetail/1042
 6. Yes, can save a webpage. Steps to save a webpage –
Step 1: Open a webpage on a browser that you want to save.
Step 2: Click on Save page as option or press Ctrl+S.
Step 3: Give name to web page and select location.
Step 4: Select option to save the complete page or just HTML.
Step 5: Click on Save.

Activity

Do yourself.

CHAPTER 9

- A** 1. (c) 2. (c) 3. (c) 4. (c) 5. (a)
- B** 1. nickname 2. shortened
3. online transactions 4. Plagiarism
5. Security
- C** 1. 7 2. 7 3. 3 4. 7 5. 3
- D** 1. Computer ethics are increasingly becoming important because of the rising number of cybercrime issues, including software piracy, unauthorised access, pornography, spamming, target marketing, cyberbullying and hacking.
Computer ethics are a set of moral principles that influence the use of computers. Some common issues of computer ethics include intellectual property rights, privacy concerns and how computers affect society.
2. Ethical hacking is not a crime. Ethical hackers take permission from the owner of the computer or network system and hack it to find the countermeasures for the solution.
3. Phishing - Phishing is the fraudulent attempt to obtain sensitive information such as usernames, passwords and credit card details by disguising as a trustworthy entity in electronic communication.
4. Today privacy issues are a big concern. Privacy concerns exist wherever sensitive information is collected, stored, used and finally destroyed or deleted – in digital form or otherwise.
Data privacy issues may arise in response to information from a wide range of sources such as school records, hospital records, credit card or bank records etc.
5. Unauthorised copying or distribution of licensed software is Software Piracy. It is an illegal act. This type of cybercrime occurs when a person violates copyrights and downloads, share, sell or install multiple copies of software. Illegal and improperly used software hurts the economy too. We can stop software piracy either by purchasing licensed software for personal and business use or using freeware software.

Activity

Do yourself.

WORKSHEET 1

- A** Rules to convert a Binary number into Decimal number–
- F Binary digit should be given positions from right to left by 0 onwards.
 - F Multiply each digit by 2^n , where n is the position number.
 - F Add each number to get final decimal number that is equivalent to binary digit.
- B** Four types of functions are–
- F Arithmetical Function
 - F Logical Function

F TextFunction

◆ FinancialFunction

- C Antivirus software are computer utility programs which are designed to identify, prevent and remove viruses, worms and other malware from a computer. It is an essential utility for any computer. Quick Heal is being used in most of the computer.

WORKSHEET 2

- A Do yourself.
- B Observe, research and do yourself.
- C 1. Memory Card 2. Memory Card 3. External USB(Hard Disk)

| Tags | Syntax | Description |
|------------|-------------------------------------|--|
| HTML tags | <HTML> ... </HTML> | It is the main tag to start and end html document. |
| HEAD tags | <Head> < Title> </title> </head> | Head tag is used between <html> and <body>tag. It is used to set page title and meta data. |
| TITLE tags | <Title> </title> | It is used within <Head> tag for giving page title. |

WORKSHEET 3

- A Practical Assignment

| Voice Recognition System | LCD Projector |
|---|---|
| F Voice Recognition System allows a user to give commands to the computer directly through his/her voice. | F LCD Projectors are used to project output on a big screen for large number of people at a time. |
| F It is also used for translating text into the computer. | F LCD projectors are normally used in corporate presentations, educational programs and demonstrations etc. |

WORKSHEET 4

- A Already solved.
- B Internet and Computer Ethics are the sets of moral guidelines that govern the use of computers, Internet & information systems. Internet & Computer ethics are increasingly becoming important because of the rising number of cyber crime issues including software piracy, unauthorised internet access, pornography, spamming and hacking.

CLASS – VIII

CHAPTER 1

- A** 1. (b) 2. (c) 3. (c) 4. ©
- B** 1. Windows 2. Android 3. Graphical User Interface
4. Linus Benedict Torvalds 5. Linux
- C** 1. 3 2. 3 3. 3 4. 3 5. 7
- D** 1. Windows 10 2. warm 3. Input/Output 4. Graphical
- E** 1. Multitasking: It supports simultaneous execution of multiple tasks. For example Windows 10, Linux.
2. Multi-User: It can support more than one user to process a job at some fraction of time. For eg. Unix.
3. Booting: It is the process of loading of an Operating System into the computer's memory.
4. Cold Booting: Cold booting is the process of starting the system from initial state. In this process computer runs self-test on its hardware & loads its OS to make it ready to use.
- F** 1. Operating System is a type of system software that controls overall activities of a computer. It is an interface between user and computer. Example: Windows, Linux, Mac etc.
2. Booting is the process of loading of an Operating System into the computer's memory. There are two types of booting – Cold Booting and Warm Booting.
3. Functions of an Operating System–
F Device Management- It controls input and output functions.
F Memory Management – It manages internal and external memory.
F File Management – It ensures files are saved in a proper format, created and modified date, utilising minimum space and available whenever required.
F Security – It creates users and their password and allow them to work accordingly.

| | CUI | GUI |
|----|--|--|
| 1. | Character User Interface. | 1. Graphical User Interface. |
| 2. | It accepts input in the form of characters and numbers from keyboard only. | 2. It allows users to interact with computer using graphics and pointing devices. |
| 3. | It is difficult to learn and use. | 3. It consists graphics on which user can just click, drag and drop to make them work. |
| 4. | It is not user friendly. | 4. It is very easy and user friendly. |
| 5. | Eg. MS DOS, UNIX etc. | 5. Eg. Windows, Linux, Mac etc. |