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# **DATA ENTRY OPERATIONS**

**N-336**

**Chapter wise Reference Book  
Including Many Solved Sample Papers**

*Based on*

**N.I.O.S. Class – XII**  
National Institute of Open Schooling

*By : Gaurav Sahni*



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*Based on:* **NATIONAL INSTITUTE OF OPEN SCHOOLING - XII**

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# Solved Sample Paper - 1

Based on NIOS (National Institute of Open Schooling)

## Data Entry Operations - XII

Time : 2 Hours

Maximum Marks : 40

**Note :** All question are **compulsory** and carry marks as indicated against each question.

### SECTION-A

**Q. 1. Fill in the blanks of the following:**

- (i) LCD stands for\_\_\_\_\_.
- (ii) To select non-consecutive file or folder, press and hold down\_\_\_\_\_key.
- (iii) \_\_\_\_\_, a pointing device, is a mouse lying on its back.
- (iv) You can merge the data records to\_\_\_\_\_.
- (v) \_\_\_\_\_ refers to the mail server.
- (vi) Select\_\_\_\_\_from the menu bar to view how the worksheet will look when printed.
- (vii) The program written by the programmer in high-level language is called\_\_\_\_\_.
- (viii) \_\_\_\_\_is a collection of one or more web page(s).
- (ix) Under file, click\_\_\_\_\_and select folder.
- (x) The operating system in these days uses a\_\_\_\_\_.

**Ans.** (i) Liquid Crystal Displays; (ii) CTRL; (iii) Trackball; (iv) A new document or printer; (v) Domain name; (vi) Print Preview; (vii) Compiler; (viii) Website; (ix) New; (x) Graphical User Interface (GUI).

**Q. 2. State True or False:**

- (i) 'C' is a procedural language.
- (ii) Web server is an electronic document that links to another place in the same document or to an entirely different document.
- (iii) Control panel cannot be used to change system settings.
- (iv) Heading 1 is a default style.
- (v) Pivot table allows you to perform data analysis.
- (vi) While preparing slides, use long-phrases sentences to convey your message.
- (vii) Computer language FORTRAN is used to solve the scientific and mathematical problems.
- (viii) Windows cannot provide help.
- (ix) 192.100.8.56 is a valid IP address.
- (x) Pain shop Pro is not a graphics tool.

**Ans.** (i) True; (ii) False; (iii) False; (iv) False; (v) True; (vi) False; (vii) True; (viii) False; (ix) True; (x) False.

**Q. 3. Define the following terms (any two):**

**(a) Output device**

**Ans. Output device:** Output devices return processed data that is information, back to the user. Some of the commonly used output devices are:

1. Monitor (Visual Display Unit)
2. Printers
3. Plotter
4. Speakers

**(b) Rulers**

**Ans. Ref.:** See Chapter-3, Page No. 45, Q. No. 1 (Terminal Questions).

**(c) Auto sum**

**Ans.** The sum of cell values can also be done with the help of AutoSum feature also. The AutoSum feature makes it very easy to total rows and columns using the SUM worksheet function.

**Q. 4. Write short note on the following:**

**(a) Machine language**

**Ans. Machine Language:** In machine language program, the computation is based on binary numbers. All the instructions including operations, registers, data and memory locations are given in there binary equivalent. The machine directly understands this language by virtue of its circuitry design so these programs are directly executable on the computer without any translations. This makes the program execution very fast. Machine languages are also known as first generation languages.

**(b) Format painter**

**Ans. Ref.:** See Chapter-7, Page No. 98, Q. No. 1 (Terminal Questions).

**(c) Title Slide**

**Ans. Title Slide:** This option is useful for beginning a presentation; use this slide if you want to include subtitles or smaller text underneath a title. It is the first slide in the slide deck and appears in the PowerPoint workspace when that presentation is opened.

**(d) Search in Windows (Steps)**

**Ans. Ref.:** See Chapter-2, Page No. 29, Q. No. 1 (Terminal Questions).

**(e) HTML**

**Ans. HTML, or Hypertext Markup Language,** is the most widely used language on Web. As its name suggests, HTML is a markup language, which may sound complicated, although really you come across markup every day. Markup is just something you add to a document to give it special meaning.

HTML is the language you use to tell a Web browser where the heading is for a Web page, what is a paragraph, what is part of a table and so on, so it can structure your document and render it properly.

**Q. 5. Differentiate between the following:**

**(a) FTP and TCP/IP**

**Ans. FTP and TCP/IP:** FTP or File Transfer Protocol is a commonly used protocol for exchanging files over any network that supports the TCP/IP protocol (such as the Internet or an Intranet).

Each computer connected up to the Internet has a software called TCP/IP (Transmission Control Protocol/Internet Protocol), which is responsible for receiving, sending and checking packets. TCP/IP is the 'glue' of the Internet.

**(b) Stock chart and XY (Scatter) chart**

**Ans. XY Scatter Charts:** The XY (Scatter) chart is the type I use most often. In addition to the default Markers-Only style, you can select smoothed or straight line connectors, with or without markers, as shown below. In a Scatter chart, both the X and Y values are treated as continuously variable numeric values. A logarithmic X axis can only be produced in an XY chart.

**(c) Title Case and Toggle Case**

**Ans. Title Case:** Capitalizes the first letter of every word and reduces the rest to lowercase.

**Toggle Case:** The opposite of Title case, it makes the first letter of every word lowercase and capitalizes the remaining letters.

**(d) Print and Print Preview**

**Ans. Print:** Print is a command which commands the printer to print the given page or data.

The print command is used when we are sure of what to print and we don't want to make any other modifications in the page layout.

**Print Preview:** Print preview is the command which allows the preview of the document, before being printed on paper.

This command allows us to see the page layout, design, and arrangement of the information that will later be printed. In case, we want to do any modifications we can see and change them before printing

**(e) System Software and Application Software**

**Ans. Ref.:** See Chapter-1, Page No. 11, Q. No. 5 (Terminal Questions).

**Q. 6. Answer the following:**

**(a) Mrs. Komal is working in an organization as Executive and she has created one MS word document. Now, she is unable to perform the following task, help her to do so, by writing the steps.**

**(i) Insert bullets and numbers**

**Ans.** The bullet image and numbering format can be changed by using the Bullets and Numbering dialog box.

1. Highlight the entire list to change all the bullets or numbers, or Place the cursor on one line within the list to change a single bullet.

2. Access the dialog box by selecting Home Paragraphs sub task menu on the main tab bar or by right-clicking within the list and selecting Bullets or Numbering command from the shortcut menu as per requirement.

3. Select the list style from one of the choices given, or click the Picture... button to choose a different icon. Click the Numbered tab to choose a numbered list style.

4. Click OK when finished.

**(ii) Page size and orientation**

**Ans.** Change the orientation of a page within the Page Setup dialog box.

1. Select Page Layout-Size command on the main tab bar and choose from the available the Letter, Legal or A4 size as per requirement. Should need to look at more options, click on the More Paper Sizes from the size sub task.

2. Select the proper paper size from the drop-down menu.

**(b) Based on the following data, find the values of the expressions:**

|    |    |    |    |
|----|----|----|----|
| 20 | 15 | 8  | 9  |
| 35 | 2  | 15 | 24 |
| 23 | 15 | 38 | 2  |
| 3  | 7  | 8  | 20 |

**(i) = (D1\*2/D3) – A4**

**(ii) = B2\*(C2/3 – A4)**

**(iii) = SUM (A1 : D1)/4**

**(iv) = MAX (A1 : D4)\*MIN(A1 : D4)**

**Ans.** After putting formula in Excel, the following result was obtained:

**(i) = (D1\*2/D3)-A4 = 6**

**(ii) = B2\*(C2/3-A4) = 4**

**(iii) = S UM(A1:D1)/4 = 13**

**(iv) = MAX(A1:D4)\*MIN(A1:D4) = 76.**



# Sample Preview of The Chapter

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# DATA ENTRY OPERATIONS

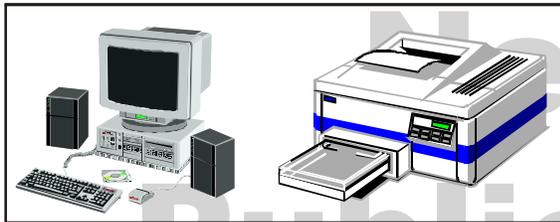
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## Basics of Computer



### **INTRODUCTION**

#### **WHAT IS A COMPUTER?**



Computer is an electronic device. It can do arithmetic calculations very fast. But as you will see later, it does much more than that. It can be compared to a magic box, which serves different purposes to different people. For a common man, computer is simply a calculator, which works automatically and quite fast. For a person who knows much about it, computer is a machine capable of solving problems and manipulating data. It accepts data, processes the data by doing some mathematical and logical operations and gives the desired output.

Therefore, we may define computer as a device that transforms data. Data can be anything like marks obtained by you in various subjects. It can also be name, age, sex, weight, height, etc. of all the students in your class. Saving, investments, population of a country are also data. Computer can be defined in terms of its functions. It can (i) accept data, (ii) store data, (iii) process data as desired, and (iv) retrieve the stored data as and when required, and (v) print the result in desired format.

#### **Characteristics of a Computer**

The major characteristics of a computer are:

##### **Speed**

Computer can work very fast. It takes only few seconds for calculations that we take hours to complete. Suppose you are asked to calculate the average monthly income of one thousand persons in your neighborhood. For this you have to add income from all sources for all persons on a day-to-day basis and find out the average for each one of them. The weather forecasting that you see everyday on TV is the result of compilation and analysis of huge amount of data on temperature, humidity, pressure, etc of various places by computers. It takes few minutes for the computer to process this huge amount of data and give the result.

Computer can perform a million (1,000,000) of instructions and even more per second. Therefore, we determine the speed of computer in terms of microsecond ( $10^{-6}$  part of a second) or nano-second ( $10^{-9}$  part of a second).

##### **Accuracy**

Suppose someone calculates faster, but commits a lot of errors in computing. Such results are useless. There is another aspect. Suppose you want to divide 15 by 7. You may work out upto 2 decimal places and say the dividend is 2.14. You may calculate upto 4 decimal places and say that the result is 2.1428. Someone else may go upto 9 decimal places and say the result is 2.142857143. Hence, in addition to speed, the computer has accuracy or correctness in computing.

The degree of accuracy of computer is very high and every calculation is performed with the same

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accuracy. The accuracy level is determined on the basis of design of computer. The errors in computer are due to human and inaccurate data.

**Diligence**

A computer is free from tiredness, lack of concentration, fatigue, etc. It can work for hours without creating any error. If millions of calculations are to be performed, a computer will perform every calculation with the same accuracy. Due to this capability it overpowers human beings in routine type of work.

**Versatility**

It means the capacity to perform completely different types of work. One moment you may use your computer to prepare payroll slips, next moment you may use it for inventory management or to prepare electric bills.

**Power of Remembering**

Computer has the power of storing any amount of information or data. Any information can be stored and recalled as long as you require it, for any number of years. It depends entirely upon you how much data you want to store in a computer and when to lose or retrieve these data.

**No IQ**

Computer is a dumb machine and it cannot do any work without instruction from the user. It performs the instructions at tremendous speed and with accuracy. It is upto you to decide what you want to do and in what sequence. A computer cannot take its own decision as you can.

**No Feelings**

A computer does not have feelings or emotion, taste, knowledge and experience. Thus it does not get tired even after long hours of work. It does not distinguish between users.

**Storage**

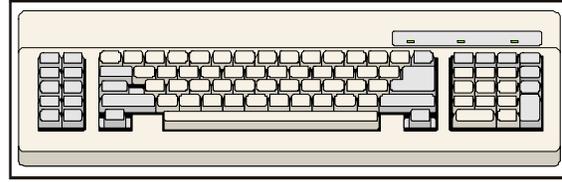
The computer has an in-built memory where it can store a large amount of data.

**Input Devices**

Keyboard

The keyboard resembles a typewriter. But there are additional keys that handle control functions. The computer keyboard has three categories of keys—

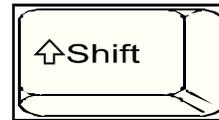
- Alphanumeric keys
- Special Keys
- Function Keys



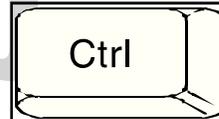
The Alphanumeric Keys comprise alphabets (A–Z or a–z). numbers (0–9) and other characters like space . . / > < ' ' ; : ~ ! @ # \$ % ^ & \* ( ) - + | \ { } [ ] .

The Special Keys perform specific tasks. Some of the special keys are Enter or the Return Key, Backspace Key, Del Key, the Ins Key, Shift Keys, Caps Lock Key, Num Lock Key, Ctrl Key and the Alt Key.

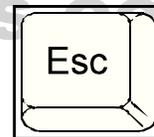
The Shift Key alters the meaning of a character key, which is depressed at the same time.



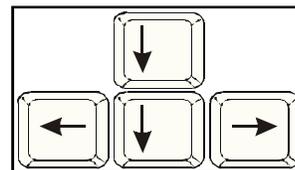
The Control Key generates control functions while the Alt Key often gives graphic characters.



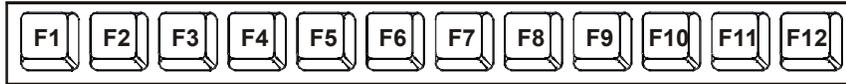
The Esc Key is generally used to signify that the current program is no longer required. The program would return the control to an earlier, master program allowing the user to choose again.



Cursor keys are supplied to move the cursor about the screen. The cursor is a symbol displayed on the screen at the position where the next character is to be keyed in, edited, altered or deleted.



The Function Keys are used to perform a set of operations by a single keystroke. The function keys can be used for various functions. They can be used as shorthand for a sequence of keystrokes, configured accordingly.



**Mouse**

Another input device for terminals or microcomputers is mouse. Used as a pointing device, the mouse is a small box, about the size of a tape cassette with a round track ball on the bottom and one or more buttons on the top. The mouse is attached to a terminal or microcomputer by a cable. When the user rolls the mouse across a flat surface, the screen cursor moves in the direction of the mouse's movement (this movement is measured in hundredths of an inch). If the user rolls the mouse forward and to the right, the cursor moves up and to the right on the screen. Such movements enable the user to

- Point to icons or tiny pictures that identify processing choices.
- Point to items in lists.
- Draw lines and pictures on a screen.



With proper software mouse can be used to draw pictures and edit text.

**Joystick**

Joysticks are designed in the shape of handles that swivel in 360-degree arcs. This enables their users to control the screen figures. Joysticks are mostly used to play games and control presentation graphics.

**Output Devices**

**The Visual Display Unit**

The Visual Display Unit (VDU) is used for interactive processing i.e., data that is being keyed in is displayed on the screen or monitor. Messages and processed informations are also displayed on the screen. The combination of keyboard and the VDU is usually referred to as Video Display Terminal (VDT), which is an input/output (I / O) device.

Most VDU monitors use a Cathode Ray Tube (CRT) that looks like a television picture tube. The depression of a key on the keyboard causes binary code to be generated, which identifies the key. The information typed goes to the memory unit of the VDU, which is used to refresh the display. The display is refreshed at a minimum of 50 cycles per second to avoid a flicker.

The characters are keyed into the memory of the VDU and then, on depression of the RETURN key, the entire contents of memory, or selected parts, are transmitted to the computer.

The video controller controls the formation of images. The video controller along with the memory is termed as the display adaptor.

Most existing display adaptors are designed to display alphanumeric data and are used to enter and retrieve letters, numbers and special characters in the text mode.

However, in the graphics mode the display screen can be divided into thousands of picture elements or pixels on or off. The processor draws a graphic image (may be a part of text) displayed in multiple typefaces and typestyles, or it may be a drawing.

The number of dots (pixels) on the screen is the measure of resolution of the monitor.

For display of characters, the screen is divided into a matrix of rows and columns with each cell in the matrix being used for one character. Typically, 80 character positions are provided on one line with 20 to 25 lines on the screen.

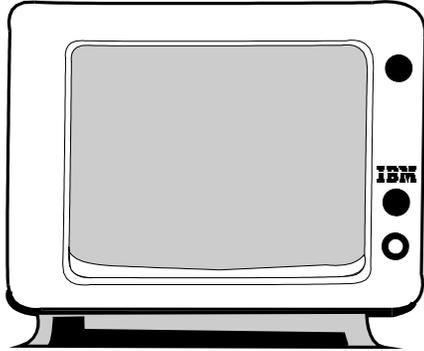
Display adaptors are of various types and are normally classified on the basis of resolution, colour and display mode.

**MGA**

Monochrome Graphics Adaptor (MGA). The term graphics is a misnomer since the device supports text

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only. Although the option is monochrome or single colour, it offers various attributes e.g. the brightness and intensity of characters which can be changed.



**CGA**

Colour Graphics Adaptor supports both text and graphics mode. It functions in colour and monochrome modes in various resolutions. The CGA works with different types of monitors. However, it gives poor display quality in the text mode. The typical resolution is 640 \* 200 (i.e., 640 rows \* 200 columns) in the graphic mode.

**HGA**

Hercules Graphics Adaptor is a monochrome adaptor with an additional graphics display mode which provides high resolution monochrome graphics. In text mode it functions like MGA, but in the graphics mode it offers a resolution of 750 \* 350 dots, even better than the CGA. In the graphics mode the HGA has no colour although it offers brightness and intensity variations.

**EGA**

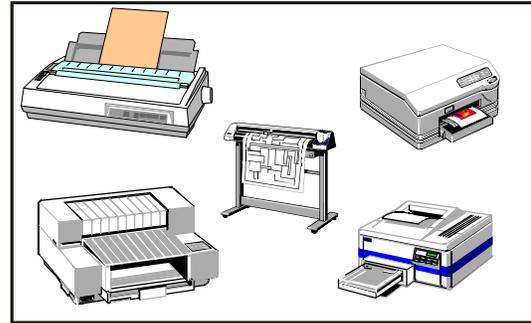
Enhanced Graphics Adaptor was developed in an effort to unify the variety of display adaptors. The EGA combines all the features of other adaptors and provides higher resolutions using higher quality colour monitors. The EGA supports 16 colours at a time.

**VGA**

Video Graphics Array supports 256 colours at a time with a high resolution.

**Printers**

The result of processing could be written by the computer onto a tape or a disk, to be used later or to be given to another computer as input. However, the most common form of computer output is printed output also called hard copy output. Printers are classified by how they print and how fast they operate.



**Character Printers**

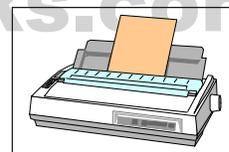
Character printers print one character at a time and are used for low-volume printing jobs.

The technique used to print characters varies widely. Impact printers operate like a typewriter, pressing a typeface against paper and inked ribbon. Impact printers often use a daisy wheel or a dot matrix printing mechanism.

**Dot Matrix Printer**

The dot matrix printer is a versatile low cost device capable of printing in various languages, printing letters of various types, in bold, italics or underlined. It can also be used to print graphics.

In the dot matrix printer an arrangement of tiny hammers strikes to produce the desired characters. Each hammer prints a small dot on the paper to form the characters. Upto 180 characters per second can be printed. However print quality is not so good. Also, the printer is not suited to heavy duty continuous printing.



The printer quality can be improved by setting the printer in 'double strike mode' where each character is printed twice with the second printing displaced slightly with respect to the first. This improves the print quality to 'near letter quality' (NLQ). Printing in NLQ mode reduces the speed of printing.

**Ink-Jet Printers**

Droplets of ink are electrically charged after leaving a nozzle. The droplets are guided to the proper positions on the paper by electrically charged deflection plates. Print quality is good because each character is formed by dozens of ink dots. Text and graphics produced are of better quality and the printer is comparatively fast. They also have the ability to use multiple nozzle print heads, thus enabling it to print in several colours.