Q.7 What is the difference between delete and backspace key?

**DIFFERENCE BETWEEN DELETE AND BACKSPACE KEY**

<table>
<thead>
<tr>
<th>DELETE</th>
<th>BACKSPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Delete key is used to remove the characters from the right side of the cursor</td>
<td>1. Backspace key is used to remove the characters from the left side of the cursor</td>
</tr>
<tr>
<td>2. Delete key does not change the cursor position</td>
<td>2. Cursor key also change the cursor position</td>
</tr>
</tbody>
</table>

Q.8 Define mouse.

**DEFINITION**

**MOUSE**

Mouse is the most widely used pointing device. Mouse is moved on a flat surface to control the movement of the cursor on a screen. The mouse is attached to the computer by a cable or wireless connection. A mouse usually has two or three buttons. These buttons are used to perform different tasks.

**Uses**

It is used to
- an object on screen e.g. text, icon
- Access menus
- Interact with programs, files or data that appear on screen

Q.9 Write down the names of mouse events.

**NAMES OF MOUSE EVENTS**

The names of mouse events are
1. Left Click
2. Right Click
3. Drag

Q.10 Define mouse events.

**MOUSE EVENTS**

Mouse event refers to the activity that can be performed by using the mouse. There are three mouse events
1. Left Click
2. Right Click
3. Drag

Q.11 What is trackball?

**TRACKBALL**

Trackball is also an input device. It is used as an alternative to a mouse. It works like a mouse but it is a stationary device with a moveable ball on its top. The body of the trackball is not moved. The ball is moved with fingers, thumb or palm.

Q.12 What are the advantages of trackball over mouse?

**ADVANTAGES OF TRACKBALL OVER MOUSE**

The advantages of trackball over mouse are given below
- The trackball is stationary so it does not require much space for use.
- It can be placed on any type of surface.
- Trackballs are popular pointing devices for portable computers.
Q.13 What is joystick?

JOYSTICK
Joystick is an input device which is used for playing games, computer aided design or simulations. It is like a lever that can move in all directions and is used to control the movement of a pointer on the screen. The buttons on joystick is called triggers.

Q.14 What is Scanner?

SCANNER
Scanner is an input device. It reads images and text printed on the paper and then translates into electronic form that can be processed and stored by the computer.

Q.15 What is OCR?

OCR
The characters or text are usually written on a piece of paper. OCR reads the characters from the paper and convert it into text data.

Q.16 What is microphone?

MICROPHONE
A microphone is an input device used to digitally record audio data, such as the human voice. It can be plugged into a computer or recorder.

Q.17 What is voice recognition?

VOICE RECOGNITION
A system that converts the voice into text or commands is known as voice recognition. In voice recognition system, a microphone is used as input device. Voice recognition allows a user to use voice as input. The speaker speaks through microphone to give commands to computer such as opening programs, printing document, shutting down the computer, saving the document etc.

Q.18 What is light pen?

LIGHT PEN
Light pen is a light sensitive input device shaped like a pen. It is used to draw maps on the computer screen or to make menu selections.

Q.19 What is digital camera?

DIGITAL CAMERA
It is an input device. It uses Charged coupled device (CCD) to store images. Once a picture has taken, it can be downloaded to a computer for further processing with a graphic program.

Q.20 What is Disk drive?

DISK DRIVE
A disk drive is a machine that read and writes data onto a disk. Disk drive rotates the disk with precise timing and has one or more read/write heads that read and write data.

Q.21 What is monitor?

MONITOR
Monitor is the most commonly used output device on personal computers. It is also called a display or a screen. To display graphics, a display screen must have a video display adapter attached with the computer.

Q.22 What is resolution?

RESOLUTION
The numbers of pixels on monitor screen is called resolution.
Q.23 What is pixel?

**PIXEL**

A small dot on the monitor is called pixel.

Q.24 What is CRT monitor?

**CRT MONITOR**

CRT stands for Cathode Ray Tube. The CRT monitor contains a cathode ray tube. The front of the tube is a screen which is coated with phosphors. It contains a shadow mask. It can display different colors by combining various intensities of three guns.

Q.25 What is flat panel monitor?

**FLAT PANEL MONITOR**

Flat Panel Monitors are usually used in portable computers and laptops because of their small size. They are expensive than CRT monitor and don’t provide the high quality and bright colors. There are several types of Flat Panel monitors but the most common is Liquid Crystal Display (LCD) monitor.

Q.26 What is video controller?

**VIDEO CONTROLLER**

Video controller is an intermediary device between the CPU and the monitor. It contains memory and circuitry that performs the functions to send information to the monitor for displaying on screen. The resolution of the monitor is determined by the video controller.

Q.27 What is Printer?

**PRINTER**

A printer is device that produces hardcopy on the paper. Printers are commonly used in business. There are two types of printers:
1. Impact Printers
2. Non-Impact Printers

Q.28 What is impact printer?

**IMPACT PRINTER**

An impact printer produces images by striking. They use hammer or a set of pins, to press ink from the ribbon onto a piece of paper.

Q.29 What is non-impact printer?

**NON-IMPACT PRINTER**

The printers that produce output on paper without striking the paper are called non impact printer. They use electrostatic, inkjet and thermal technologies for printing.

Q.30 What is the difference between CRT and LCD monitor?

**DIFFERENCE BETWEEN CRT AND LCD MONITOR**

<table>
<thead>
<tr>
<th>CRT</th>
<th>LCD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CRT stands for cathode ray tube</td>
<td>1. LCD stands for Liquid crystal display</td>
</tr>
<tr>
<td>2. It is less expensive than LCD</td>
<td>2. It is more expensive than CRT</td>
</tr>
<tr>
<td>3. It takes more desk space</td>
<td>3. It takes less desk space.</td>
</tr>
<tr>
<td>4. It consume more electricity.</td>
<td>4. It consume less electricity.</td>
</tr>
<tr>
<td>5. It uses picture tube technology</td>
<td>5. It uses Liquid crystal technology</td>
</tr>
<tr>
<td>6. Its weight is more than LCD</td>
<td>6. Its weight is less than CRT</td>
</tr>
<tr>
<td>7. It is used for personal computers</td>
<td>7. It is used for laptop computers</td>
</tr>
<tr>
<td>8. It produce harmful radiation</td>
<td>8. It does not produce harmful radiation.</td>
</tr>
</tbody>
</table>
KEEP VISITING TOPSTUDYWORLD.COM FOR 4 REASONS

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Q.31 Define plotter.

PLOTTER
It is an output device. It is used to produce high quality hard copy. It is a large scale printer that receive commands from computer to make drawings on the paper with one or more automatic pens.

Q.32 What is the difference between Hard copy and Soft copy?

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<td>2. We cannot touch the softcopy</td>
</tr>
<tr>
<td>3. We can not modify the hard copy</td>
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Q.33 What is the difference between Dot-matrix and Laser printer?

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<tr>
<th>DOT MATRIX PRINTER</th>
<th>LASER PRINTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dot matrix is an impact printer.</td>
<td>1. Laser printer is a non impact printer</td>
</tr>
<tr>
<td>2. It produce images by striking on a piece of papers.</td>
<td>2. It produce images by using laser technology.</td>
</tr>
<tr>
<td>3. Its speed is slow</td>
<td>3. Its speed is fast</td>
</tr>
<tr>
<td>4. Its printing quality is low</td>
<td>4. Its printing quality is high</td>
</tr>
<tr>
<td>5. It normally uses continuous paper sheet</td>
<td>5. It normally uses individual paper sheet</td>
</tr>
<tr>
<td>6. Its speed is measured in characters per second</td>
<td>6. Its speed is measured in pages per minute</td>
</tr>
<tr>
<td>7. It uses ink ribbon for printing</td>
<td>7. It uses toner for printing</td>
</tr>
</tbody>
</table>

LONG QUESTIONS

Q.1 Define monitor. Also explain its different types?

MONITOR
The monitor is the most commonly used output device on personal computers (PCs). It is also called a display or a screen.

RESOLUTION
The resolution of a monitor refers to the number of pixels on the screen, expressed as a matrix. Resolution affects the quality of the monitor.

CATEGORIES OF MONITOR
All the monitors can be categorized by the way they display colors. These are:
1. Monochrome monitors
2. Color monitors

1. MONOCHROME MONITORS
Monochrome monitors can display only one color (such as green, amber or white) visually black. These monitors can display text only and are not used for displaying graphics.

2. COLOR MONITORS
Color monitors display combinations of red, green and blue colors. These three are the basic colors and their combination can display a full range of colors.
Chapter 3

INPUT/OUTPUT DEVICES

TYPES OF MONITOR
There are two basic types of monitors. These are
1. CRT (cathode rays tube) monitor
2. Flat panel monitor

1. CRT MONITOR
A CRT monitor consists of a phosphorus-coated screen; there are three electron guns on its back. The screen's phosphor coating is organized into a grid of dots. The smallest number of phosphor dots that the gun can focus on is called a pixel or picture element.

STRUCTURE OF CRT MONITOR
The three electron guns emit beams of three different colors i.e. red, green and blue. In color monitors each pixel include three phosphors - red, green, and blue - arranged in a triangle. When the beams of each of these guns are combined and focused on a pixel, the phosphors lights up. The monitor can display different colors by combining various intensities of the three beams.

SHADOW MASK
A CRT monitor contains a shadow mask, which is a fine mesh made up of metal, fitted to the shape and size of the screen. The holes in the shadow mask's mesh are used to align the electron beams, to ensure that they strike precisely the correct phosphor dot. In most shadow masks, these holes are arranged in triangle.

2. FLAT-PANEL MONITOR
- Flat panel monitors are usually used in portable computers and laptops because of their small size.
- They are expensive to manufacture.
- They don't provide the high quality and bright colors that CRT technology provides.
- There are several types of flat-panel monitors but the most common is liquid crystal display (LCD) monitor

Q2: What is printer? Explain Impact printers

PRINTER
A printer is device that produces hardcopy on the paper. Printers are commonly used in business.

Types of printers
Based on the printing mechanism, Printer can be divided into following categories
1. Impact Printers
2. Non-Impact Printers

IMPACT PRINTERS
An impact printer produces images by striking. They use hammer or a set of pins, to press ink from the ribbon onto a piece of paper.
Impact printers are the oldest printer
- Provide low-cost printing.
- Produce noise
- Provide low quality prints
- Have slow printing speed
Chapter 3

INPUT/OUTPUT DEVICES

Types of Impact Printers

Types of impact printers are

1. Dot-Matrix Printer
2. Daisy-Wheel Printer
3. Line Printer

1- DOT MATRIX PRINTER

Dot matrix printer produces output on paper by striking pins against an ink ribbon. The dots are printed very closely in the appropriate shape to form numeric digits, alphabets or other special characters.

Advantages

• The speed of dot matrix printer is 30 to 600 CPS.
• These printers can print multiple copies of a page at a time.

Disadvantages

• These printers are slow and produce noise.
• These printers provide low quality output.
• Dot-matrix printers are relatively expensive.

2- DAISY WHEEL PRINTER

Daisy wheel printer is similar to a typewriter. It uses a print wheel. The print wheel is called daisy wheel. Each petal of daisy wheel contains character. A motor rotates the wheel. A hammer strikes a petal against the ribbon when the desired character reaches the position on the paper. This prints the character on the paper.

Advantages

• The speed of dot matrix printer is 10 to 50 CPS.
• Daisy wheel printers are better in quality as compare to dot matrix printer.

Disadvantages

• Daisy wheel printers are slower
• These printers cannot produce graphics

3- LINE PRINTER

Line printer is similar to daisy wheel printer. Line printer prints a complete line of characters at a time.

Advantages

• The printing speed of line printer is ranging from 300 LPM to 2400 LPM.
• These printers are much faster than dot matrix or daisy wheel printer.

Disadvantages

• Line printers are noisy
• These printers produce low quality output.
• These printers have limited font capability

Q.3 Write a note on non impact printers

NON IMPACT PRINTER

“A non-impact printer produces images on paper without striking the page.”

Characteristics of Non-Impact Printers

• They are expensive and don’t produce noise.
• These printers use a chemically coated paper on which the characters are exposed by some means such as a laser.
• These printers produce high quality output.
• These printers are inexpensive to manufacture and silent.
• These printers can more than 24 pages per minute.
Chapter 3

INPUT/OUTPUT DEVICES

TYPES OF NON IMPACT PRINTERS

Different types of non impact printers are as follows:

1. LASER PRINTER
2. INKJET PRINTER
3. THERMAL PRINTER

1- LASER PRINTER

LASER stands for Light Amplification by stimulated Emission of Radiation. Laser printer is similar to photocopier machine. It uses laser beam to burn special ink called toner on the page to create a permanent image on the paper. It creates high quality output at a relatively fast speed, without making too much noise.

The laser printer has a special drum inside it. Basically laser printers apply an electrostatic charge to a drum. A laser beam then discharges portions of the drum to form the characters or graphics and then charged toner attaches itself to these discharges portions of drum. In this way the image of output is produced on the drum. When a charged piece of paper is passed over the drum, the image of output from drum is transferred on the paper. The toner is heated to create a permanent image on the paper.

Advantages

- The printing speed of Laser printer is ranging from 4 PPM to 12 PPM.
- These printers are much faster
- They produce high quality output

Disadvantages

- LASER printers are expensive

ELECTRO-THERMAL PRINTER

An electro thermal printer is a type of printer that uses heated pins to burn images onto heat sensitive paper. These types of printers are commonly used in calculators and fax machines.

Advantages

- The printing speed of Laser printer is ranging from 4 PPM to 12 PPM.
- These printers are fast
- They produce high quality output

Disadvantages

- These printers produce low resolution prints

ELECTROSTATIC PRINTER

Electrostatic printer uses a special photographic paper onto which characters are etched using a stylus. The stylus is made up of tiny wires and form character by placing an electrostatic charged image on the paper. Then, as the paper is moved through a solution containing ink particles, the ink attaches to the charges that form a pattern on the paper to develop the image.

Advantages

- These printers can be used for both printing and plotting (displaying graphic output)
- These printers can print 5000 lines per minute.

INK JET PRINTER

The ink jet printer is a non impact printer that is used to print characters and graphics by spraying ink on a sheet of paper. Ink jet printers are capable of producing high quality print that are produced by laser printers. A typical ink jet printer provides a resolution of 300 dots per inch. Although some newer models offer higher resolution. These printers can also produce high quality color graphics including photos.
Advantages
- These printers can produce color and black and white output.
- They are quite light in weight
- These are inexpensive

Disadvantages
- These printers are slower than laser printers
- These printers required special type of ink

Q.4 What is plotter? Explain it

PLOTTER
A plotter is a large-scale printer that receives commands from a computer to make drawings on the paper with one or more automatic pens. Unlike a regular printer, the plotter can draw continuous point-to-point lines directly from computer graphics files or commands.

TYPES OF PLOTTERS
There are three basic types of plotters, i.e.
- Drum plotters
- Flatbed plotters
- Electrostatic plotters

DRUM PLOTTER
The printing mechanism of the drum plotter involves a pen and a drum. The paper is wrapped onto the drum that rotates back and forth. To produce an image onto the paper, the pen (mounted on a cartridge) moves horizontally while the rotation of the drum causes the paper to move vertically. In this way the vertical movement of the paper and the horizontal movement of the pen create the required design. Pen having different colors can be used to produce output in different colors.

FLATBED PLOTTER
The printing mechanism of flatbed plotters consists of two arms and a rectangular flatbed. Flatbed plotters use two arms, each of which holds a set of colored ink pens. The two arms operate at right angle as they draw on a stationary piece of paper. Flatbed plotters are very slow and even can take hours to print a complicated drawing.

ELECTROSTATIC PLOTTER
Electrostatic Plotter draws on negatively charged paper with positively charged toner. As a rule, plotters are much more expensive than printers. They are most frequently used for CAE (Computer-Aided Engineering) applications, such as CAD (Computer-Aided Design) and CAM (Computer-Aided Manufacturing).
EXERCISE

Q.1 Name the different categories of input devices?
Some different categories of input devices are
1. Keyboard
2. Pointing devices
3. Scanning devices
4. Voice input devices
5. Digital cameras

Q.2 What is keyboard? Name the different key categories on the keyboard?

KEYBOARD
Keyboard is the most commonly used input device. It is the standard input device used to enter textual data into the computer. The layout of keyboard is just like the traditional typewriter. But it contains some extra command keys and function keys. A typical keyboard can have 101 to 104 keys. The most popular standard keyboard is also referred to as QWERTY keyboard.

CLASSIFICATION KEYS ON KEYBOARD
The keys on keyboard can be classified as
- Alphanumeric keys
- Numeric keys
- Function keys
- Cursor control keys
- Special keys

Q.3 Name five important keys on a keyboard along with their functions?

NAME OF FIVE IMPORTANT KEYS
The important keys are

Enter key
It is used to enter the commands or instructions into the computer. It is also called return key.

Esc key
This key is used to exit or escape from the current program.

Delete key
This key is used to delete the characters from the right side of the cursor but it does not change the cursor position.

End key
This key is used to move the cursor to the end of line or end of page.

Alt key
This key is short for Alternate and it is used with the combination of other keys to perform special task.

Q.4 What is voice recognition software? Explain
A system that converts the voice into text or commands is known as voice recognition. In voice recognition system, a microphone is used as input device. Voice recognition allows a user to use voice as input. The speaker speaks through microphone to give commands to computer such as opening programs, printing document, shutting down the computer, saving the document etc.
Q.5 Define scanner.

**SCANNER**

Scanner is an input device. It reads images and text printed on the paper and then translates into electronic form that can be processed and stored by the computer.

Q.6 What is monitor? Differentiate between monochrome and color monitors?

**MONITOR**

Monitor is the most commonly used output device on personal computers. It is also called a display or a screen. To display graphics, a display screen must have a video display adapter attached with the computer.

**DIFFERENCE BETWEEN MONOCHROME AND COLOR MONITOR**

<table>
<thead>
<tr>
<th>MONOCHROME</th>
<th>COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. These monitors can display information in only one color.</td>
<td>1. These monitors can display information in different colors.</td>
</tr>
<tr>
<td>2. These monitors can display information in green, amber or white with black background.</td>
<td>2. These monitors can display output with the combination of red, green and blue color.</td>
</tr>
<tr>
<td>3. These monitors can not display graphics.</td>
<td>3. These monitors can display text and graphics.</td>
</tr>
</tbody>
</table>

Q.7 Define

**Flat Panel Display**

Flat panel monitors are usually used in portable computers and laptops because of their small size. They are expensive than CRT monitors and don’t provide the high quality and bright colors that CRT technology provides.

**Liquid Panel Display**

LCD monitors created images with a special king of liquid crystal, which is normally very clear but becomes solid when charged with electricity. The liquid crystal monitors are normally used with handheld calculator or a digital watch.

Q.8 Write a note on different kinds of printers.

**PRINTER**

A printer is device that produces hard copy on the paper. Printers are commonly used in business.

**Types of printers**

Based on the printing mechanism, Printer can be divided into following categories

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Impact printers are the oldest printer

- Provide low-cost printing.
- Produce noise
- Provide low quality prints
- Have slow printing speed

**TYPES OF IMPACT PRINTERS**

Types of impact printers are

1. Dot-Matrix Printer
2. Daisy-Wheel Printer
3. Line Printer
Chapter 3
INPUT/OUTPUT DEVICES

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Disadvantages
• These printers are slow and produce noise.
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• Dot-matrix printers are relatively expensive.

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Advantages
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- These are inexpensive

Disadvantages
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Q.10 What is the difference between softcopy and hard copy?

**DIFFERENCE BETWEEN HARD COPY AND SOFT COPY**

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Q.11 Fill in the Blank.

- i) Keyboard
- ii) Alphanumeric keys
- iii) Numeric keys
- iv) CD-ROM
- v) Magnetic Tape
- vi) Keyboard layout
- vii) Red, Green, Blue
- viii) Input
- ix) Light Amplification by stimulated emission of radiation
- x) 700 MB

Q.12 True or False

- i) T
- ii) T
- iii) T
- iv) F
- v) F
- vi) T
- vii) F
- viii) T
- ix) T
- x) F

Q.13 Choose the correct answer

- i) C
- ii) E
- iii) C
- iv) C
- v) B