

CSE-403

Peripherals Types

1. What are peripheral devices, types of peripherals?

Peripheral device: Peripheral devices are hardware components that are connected to a computer and expand its capabilities, but they are not part of the core computer architecture. They can be external devices or internal components that interact with the computer to provide input, output, or storage functions.

There are three different types of peripherals:

1. Input :

- Keyboard
- Mouse
- Graphic table
- Touchscreen
- Barcode Reader
- Image scanner
- Webcam
- Computer display
- LCD projector
- Graphics output device
- Printer
- Video tapes

2. Output :

- Display device

3. Storage:

- Floppy disk drive
- Flash drive
- Disk drive
- CD/DVD drive

2. Write the definition of input, output and storage device.

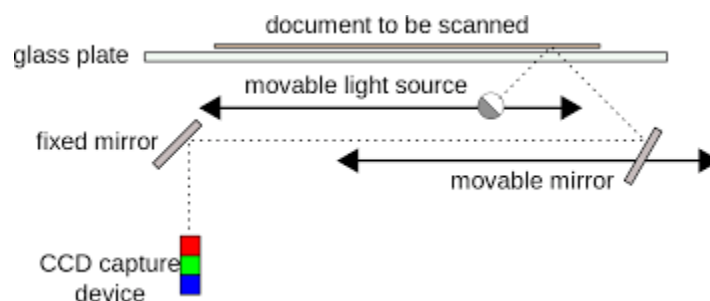
Input device: Hardware that input data or commands to a computer.

Output device: Hardware that displays information from a computer.

storage device: Hardware that stores data for future use in a computer.

3. What is a scanner, write their work process by figure?

Scanner: Scanner is a light-sensing device that reads printed text and graphics.



4. What is a biometric, write their types.

Biometric: Biometrics refers to the use of unique physical or behavioral characteristics to verify or identify individuals.

They are many types of biometric

- Fingerprint scanner
- Facial recognition
- Voice recognition
- Eye Scanner
- Signature Recognition

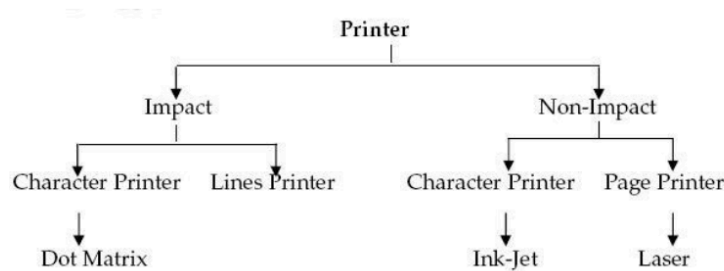
5. What are examples of biometric technology?

- Voice verification system compares live speech with stored voice pattern.
- Signature verification system recognizes the shape of the signature.
- Iris recognition system reads patterns in blood vessels in the back of the eye.
- Biometric data is sometimes stored on smart cards, which store personal data on microprocessors embedded in cards.

6. What is printer, write there types?

Printer: Output device that produces text and graphics on a physical medium.

Their types are



Types of the Printers

7. What is an impact and non-impact printer, how do they work?

Impact printer: An impact printer is a type of printer that works by physically striking an inked ribbon against paper to produce text or images.

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Non-impact printer: A non-impact printer is a type of printer that does not use physical force to create images or text on paper. They use spray ink while others use heat and pressure to create images.

8. What is display?

Display: A display is an electronic device that presents visual information from a computer or other electronic device.

9. Write the difference between CRT and LCD display.

Difference between CRT and LCD are

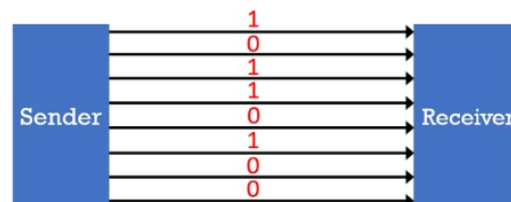
CRT	LCD
CRT stands for "Cathode Ray Tube".	LCD stands for "Liquid Crystal Display".
CRT is weighted, bulky and large in size.	LCD is light, compact and thin in size.
It consumes High power.	It consumes Low power.
CRT is like Black.	CRT is like White.
CRT having good response.	LCD having slow response.
CRT is used in Televisions and was used in old computer monitors.	LCD is used in flat screens.

10. What is digital communication? Write their classification and working process?

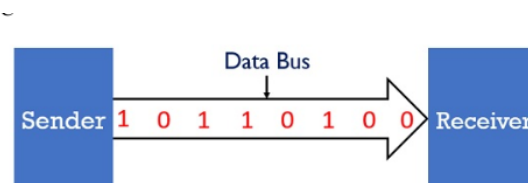
Digital communication: Digital communication means transforming information using digital signals, which are discrete and quantized representations of data.

They are two classification like

- Serial Communication: Transferring of the bits in a parallel fashion at a time.



- Parallel Communication: Transferring of data bit by bit, sequentially.



11. Write the mode of serial data transfer with a diagram.

There are three mode of serial data transfer

- Simplex mode

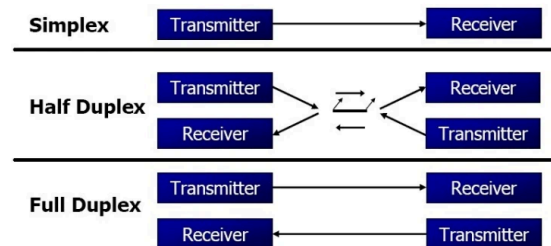
Data travels in only one direction. E.g. from computer to printer

- Half duplex mode

Data travels in both directions but not at the same time.

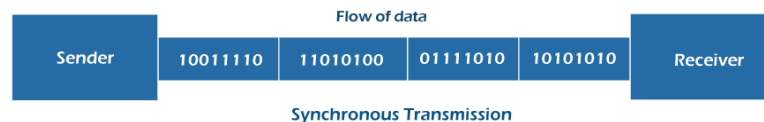
- Full duplex mode

Data travels in both directions at the same time.

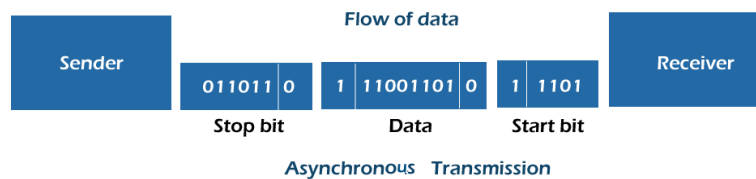


12. Write the Synchronous and Asynchronous with figure and example.

Synchronous: Synchronous communication means messages are sent and received at the same time, like a phone call where both people talk and listen simultaneously.



Asynchronous: Asynchronous communication means messages are sent and received at different times, like emails where you send a message now and the recipient reads it later.



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13. What is USART, Write its working process?

USART means Universal Synchronous Asynchronous Receiver Transmitter.

Working process are

- The USART module is a full duplex, serial I/O communication peripheral.
- It is packed in a 28 pin DIP.
- It contains all shift registers, clock generators and data buffers needed for serial communication.
- It can work in synchronous mode, or in asynchronous mode.
- The USART uses two I/O pins to transmit and receive serial data.
- The USART can send the data, bit by bit in the requested format, adding Stop, start, and parity bits as needed.
- Then the USART can generate an interrupt to notify the processor to find out if data has arrived.