07/06/21
1. List and describe the functions of different types of input and scanning devices listed:
   a) **Magnetic ink character recognition (MICR)**
   Magnetic ink character recognition (MICR) **direct entry method used in banks. This technology is used to automatically read those futuristic looking numbers at the bottom of cheques. Special purpose machines known as reader/sorter reads characters made up of ink containing magnetized particles**
   b) **Optical character recognition (OCR)**

Optical character recognition (OCR) **uses special pre-printed characters which are read by a light source and changed into machine readable code. A common OCR device is the hand-held wand reader.**

   c) Optical mark recognition **(OMR)**
   Optical mark recognition (OMR) also **known as mark sensing. An OMR device senses the presence or absence of marks such as pencil marks. Multiple answer sheet used in exam can be read using optical mark reader. The position of the marks is compared with the stored set making marking a very quick and accurate proces**s.
   d) What is a POS terminal? What are two input devices on it that represent the two methods of inputting data?

Supermarkets use a bar code called the Universal Product Code (UPC), which identifies the product to the supermarket computer. The computer has a description and the latest price of the product. It automatically tells the Point of Sale (POS) terminals the price and prints the price and product name on the receipt. Two devices are (any 2 from the list), Magnetic card Reader/barcode reader/scanner, keyboard, LCD/touch screen and printer

   e) How is a dumb terminal different from an intelligent terminal?

   Intelligent terminals include memory and a processor to perform special display operations. In contrast, a dumb terminal has no processing capabilities; it must rely entirely on the central computer.

08/06/21
1. List and describe the functions of different types of input devices listed below:
   a) Image capturing devices
Image capturing devices **are devices that create or capture original images.**
.
   b) Digital camera
Digital camera **is similar to traditional cameras except that images are recorded digitally on a disk or in the camera's memory.**
   c) Digital video camera
   digital videos are recorded digitally on a disk or in the camera's memory. Most have the capability to take still images as well. E.g. Webcam's (Web Cameras)
   d) Audio – input devices

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Audio – input devices **allow a user to send audio signals to a computer for processing, recording, or carrying out commands.**

e) Microphone

Voice input systems enable users to keep hands free for other tasks. They are becoming an office advantage for physically challenged people. This system is also known as speech recognition device or voice recognition system device. E.g. *microphone***.**

f) Musical instrument digital interface or MIDI

Musical instrument digital interface **(MIDI) is a standard that allows musical instruments to connect to the system unit using a special MIDI port. MIDI devices are specialized musical instruments that provide input in the form of encoded digital signals representing musical sounds. MIDI devices can be used create, record, and play back musical compositions.**

09/06/21

1. Define what is output device?

An *output device* **is any peripheral device that converts machine-readable information into people-readable form such as a monitor, printer, plotter and voice output device. Output is either in** *Soft copy* **stored on any storage device and** *Hard copy* **is printed on a paper.**

2. Name different types of monitors?
- ✓ **Cathode Ray Tube (CRT)**
- ✓ **Liquid Crystal Display (LCD)**
- ✓ **Plasma screen technology**
- ✓ **Digital and Interactive whiteboards**
- ✓ **High-definition television (HDTV)**
3. **What is another name for monitor?**
   Visual Display Unit or Screen

10/06/21

1. What is a printer?

Printer is an essential peripheral device in any computer system. It provides the output in paper form which people can take away to read, analyze or store.

2. What is the difference between personal and shared lasers?

Personal laser can be used by one person at a time whereas shared lasers can be used by many people on a network.

3. What is the difference between impact and non-impact printers?

   Impact printer's forms characters by some mechanical means of hitting the paper through an inked ribbon whereas non-impact printers are quiet because nothing presses on the page, a non-impact printer cannot produce carbon copies.

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4. Fill in the missing details in the table below.

Printer Category	Description
1.Laser Printers	Work in the same manner as copy machines; a laser beam creates electrical charges that attract toner to form an image and transfer it to paper. These printers come in a variety of sizes. The best printers around yet.
Inkjet printers	2. Are less expensive than laser printers, quiet popular with microcomputers. Inkjets produce higher resolution output than dot-matrix printers. They also come in colors. More finely as the toner is sprayed onto the paper
3.Thermal Printers	Uses heat and electricity to form characters and to produce images on heat-sensitive paper. Uses heated dot-matrix wires to print output on specially treated paper. As the hot pins in a thermal print head press the ribbon against the paper, the wax melts and the ink is transferred to the paper.

11/06/21 ESSAY WRITING

Output devices produce two kinds of output, softcopy and hardcopy.

Discuss the above statement under the following criteria:

- **one** output device that produces softcopy
- **one** output device that produces hardcopy
- **four** types of output devices and its purpose

Introduction	½ mark
one output device that produces softcopy. A monitor or a display is an electronic visual display for computers. The monitor comprises the display device, circuitry and an enclosure. **one** output device that produces hardcopy. Printer is an essential peripheral device in any computer system. It provides the output in paper form which people can take away to read, analyze or store.	1 mark
four types of output devices and its purpose **Monitors** • Cathode Ray Tube (CRT) is the most common type of monitor for the office and the home. The monitors are typically placed directly on the system unit or on the desktop. • Liquid Crystal Display (LCD) produces an image by manipulating light within a layer of liquid crystal cells. Modern LCD technology is compact in size and lightweight, and provides an easy-to-read display. • Plasma screen technology creates an on-screen image by illuminating miniature colored fluorescent lights arrayed in a panel-like screen • Digital and Interactive whiteboards are specialized devices with a large display connected to a computer or projector. • High-definition television (HDTV) delivers a much clearer and more detailed wide-screen picture than regular television.	2 marks each -1mark -type -1 mark purpose 4 *2marks = 8 marks

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• E-book readers (e-readers) are dedicated mobile devices for storing and displaying e-books and other electronic media including electronic newspaper and magazines. **Printers** • Impact printer's forms characters by some mechanical means of hitting the paper through an inked ribbon. • Non-impact printers are quiet because nothing presses on the page, a non-impact printer cannot produce carbon copies. • Laser printers work in the same manner as copy machines; a laser beam creates electrical charges that attract toner to form an image and transfer it to paper. • 3-D printers also known as additive manufacturing, create three dimensional shapes by adding very thin layer after layer of material until the final shape is fully formed. • Inkjet printers are less expensive than laser printers, quite popular with microcomputers. Inkjets produce higher resolution output than dot-matrix printers. • Thermal printers use heat and electricity to form characters and to produce images on heat-sensitive paper. • Cloud printers are connected to the internet that provides printing services to others on the internet. Google cloud print is a service that supports cloud printing. **Plotters** • A plotter uses pens to draw an image on paper. Architects and engineers who produce multicolor line drawings often use plotters. • Pen Plotter creates plots by moving a pen or pencil over a drafting paper. • Ink-jet plotter they form images like ink jet printer by spraying droplets of ink onto the paper. • Electrostatic plotters use electrostatic charges to create images made up of tiny dots on specially printed paper. • Direct image plotters or thermal plotters creates images using heat sensitive paper and electrically heated pins, is quite reliable and good for high volume work. **Voice-Output** Device produces sound like human speech, but is actually pre-recorded vocalized sounds. E.g. speakers	
Conclusion	½ mark

THE END