

Chapter 2: Input, Output and Storage Devices**SUMMATIVE ASSESSMENT****Type A: Multiple Choice Questions (MCQ)**

- i. (c) Both (a) and (b)
- ii. (d) All of these
- iii. (c) Joystick
- iv. (c) Sound card
- v. (b) OCR
- vi. (d) None of these
- vii. (b) D-RAM
- viii. (c) Cost effective
- ix. (c) Cache
- x. (a) 1024 Gigabyte (GB)
- xi. (d) Blu-ray Disc
- xii. (d) DB
- xiii. (d) PPM
- xiv. (d) Blue-violet
- xv. (a) Thin Film Transistor

Type B: State Whether the Following Statements are True or False

- i. False
- ii. True
- iii. False
- iv. False
- v. True
- vi. True
- vii. False
- viii. True
- ix. True
- x. False
- xi. True

Type C: Fill in the Blanks

- i. Pixels
- ii. Hardcopy
- iii. Impact
- iv. Cache
- v. Barcode reader
- vi. EPROM

- vii. DRAM
- viii. 1024 X 1024 X 1024
- ix. 17.08 GB
- x. Hard Disc Drive

Type D: Very Short Answer Type Questions

- i. Keyboard and mouse are the two commonly used input devices with the computer system.
- ii. Light pen is used by pointing directly on the monitor screen.
- iii. MICR is the special type of scanner used by the banks to authenticate the cheques.
- iv. The accuracy rate of an OCR scanner will be 80% to 90%.
- v. Speaker and monitor are two output devices which produce soft output.
- vi. The printers categorised based on their working technology: Impact and Non-impact printer.
- vii. The two advantages of using laser printer over dot matrix printer are:
 - a. Noiseless
 - b. High quality output
- viii. A material called liquid crystal is sandwiched between the two polarisable sheets is used in the LCD monitors to glow the pixel positions.
- ix. Start up instructions which control the working of computer in the beginning are stored in ROM chip.
- x. Blu-ray, DVD, CD are various optical storage devices in the descending order of their storage capacity.
- xi. Data is represented in the form of bits '0' or '1'.

Type E: Short Answer Type Questions

- i. Input device is used to enter data and instructions into then computer e.g., Keyboard, mouse.
- ii. The three types of scanner are:
 - **Flatbed Scanners:** These scanners are used for high quality images. In these type of scanners, pictures to be scanned, is kept on a flat surface.
 - Picture is scanned in just one pass.
 - **Hand Held Scanners:** These are small in sizes. It is portable i.e. can be easily carried from one place to another. Because of the small sizes, they cannot scan the entire image in one pass but multiple passes are used for scanning the image.
 - **Drum Scanners:** These scanners are called roller fed scanners. A roller or drum is rolled over the picture to scan the image.
- iii. **MICR**
 - Stands for Magnetic Ink Character Recognition.
 - Reads the characters printed with special magnetic ink.
 - It is more accurate.
 - Application – in banking sector to process cheques.

OCR

- Stands for optical Character Recognition.
- Scan the handwritten or printed text on paper and converts it into the actual text which can be edited.
- It is less accurate.

- Application- to convert handwritten or printed text into editable text.

iv. Microphone is used to send sound input to the computer.

v. **Impact printer**

- There is direct physical contact between inked ribbon and paper.
- Creates lot of noise.
- Quality of printout is poor.
- Cheaper
- E.g., Dot-matrix.

Non-impact printer

- There is no direct contact between ink and paper.
- Does not create noise.
- Quality of printout is better.
- Expensive.
- Laser printer.

vi. **CRT**

- It has Cathode Ray tube made of glass having electron gun fixed at the back. The gun fires the electrons towards the screen making it glow.
- Bulky in size.
- Consumes more power.

LCD

- In these , a material called liquid crystal, is sandwiched between two polarisable sheets. When electric current passes through the crystals, they block the light to create the pixels.
- Light weight
- Consumes less power.
- LCD monitors are better as they are light weight and consume less power.

vii. Cache memory is high speed electronic memory presence between RAM and CPU. It stores frequently used data and instructions to enhance the performance of CPU because Cache can be accessed quickly by the CPU.

viii. **PROM**

- Programmable Read Only Memory
- Programs once loaded in ROM cannot be erased or altered.

EPROM

- Erasable Programmable Read Only Memory.
- Contents can be erased by exposing it to UV rays.

EEPROM

- Electronically Erasable Programmable Read Only Memory.
- Contents can be erased using electronic signal only.

ix. Type of storage technology used in pen drive is electronic memory.

x. Units to measure larger memories are:

1 Kilobyte (KB) = 1024 Bytes

1 Megabyte (MB) = 1024 Kilobytes

1 Gigabyte (GB) = 1024 Megabytes

1 Terabyte (TB) = 1024 Gigabytes

1 Petabyte (PB) = 1024 Terabytes

1 Exabyte (EB) = 1024 Petabytes

1 Zettabyte (ZB) = 1024 Exabytes

xi. Advantages of Blu-ray disc over DVD are:

- Blu-ray disc are scratch resistant.
- Has larger storage capacity as compared to DVD.
- Resistant to finger prints.

xii. **Primary memory**

- It is also known as internal memory.
- It is smaller in size.
- Expensive.
- E.g., RAM, ROM, Cache.

Secondary memory

- It is also known as external memory.
- It is unlimited capacity.
- E.g., pendrive, CD, DVD.

Type F: Long Answer Type Questions

i. Technologies used in working of mouse are:

Mechanical mouse:

- It used mechanical sensor to track the movement of the ball.
- They are less reliable.
- Respond slowly and less precisely.

Optical mouse:

- Used LED or LASER technology to track the movement.
- Respond more quickly and precisely.
- It is more reliable.

ii. **OCR**

- Scan the handwritten or printed text on paper and converts it into the actual text which can be edited using a word processor.
- Used is US Postal service.

OMR

- Recognize marks made by pen or pencil.
- To evaluate objective type answer sheets.

MICR

- Can send the characters printed with a special magnetic ink.
- To process bank cheques.

Barcode Reader

- Read the data code available on the various products in the form of dark lines called bar codes.

- For billing in various department stores.

iii. **Laser printer:**

- Works on the principle of photocopier machine.
- Dry powder is used as ink.
- Speed is very fast.
- Expensive.

Inkjet printer:

- It sprays tiny droplets of ink onto paper to produce output.
- Liquid ink is used for printing.
- Speed is slower.
- Cheaper.

Thermal printer:

- It uses heating element to print paper.
- Special heat sensitive paper is used.
- Speed is moderate.
- Cheaper.

iv. Different optical storage devices are:

CD-ROM

- Used laser technology to store data.
- It has medium storage capacity.
- Can store upto 800 MB of data.
- Made up of polycarbonate plastic.
- Various types are CD-R, CD-RW

DVD (Digital Versatile Disc)

- Uses laser technology to store data.
- Storage capacity ranges from 4.7 GB to 17.08 GB.
- Various types are DVD-R and DVD_RW.

Blu-ray Disc

- Uses blue-violet laser to store data.
- Storage capacity ranges from 25 GB to 50 GB.
- Resistant to scratches and finger prints.

Type G: Application Oriented Questions

i. Different optical storage devices are:

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Blu-ray Disc

- Uses blue-violet laser to store data.
- Storage capacity ranges from 25 GB to 50 GB.
- Resistant to scratches and finger prints.

ii. **Keyboard:** to enter data into computer.

Mouse: to point and click

Microphone: to enter sound input into computer.

Speaker: to produce sound output.

iii.

- a. Barcode reader
- b. Webcam
- c. Blu-ray disc
- d. OCR (Optical Character Reader)
- e. RAM (Random Access Memory)
- f. OMR(Optical Mark Reader)