

Input, Output, and Secondary Storage Devices

CHAPTER 4:

PASTPAPERS

N.B. These pastpapers may rely on the knowledge gained from the previous chapters.

1 SEC'96-PAPER 1-Q12

Floppy disks are still the most common form of removable storage media. Briefly explain what the following terms, all related to floppy disks, mean:

a. DISK LABEL _____ [1]

b. SHUTTER _____ [1]

c. WRITE-PROTECT TAB (or NOTCH) _____ [1]

d. DENSITY _____ [1]

4 SEC '00-PAPER 1-Q3

Use **TEN** of the following terms to complete the passage below:

Orange *two bits* *megahertz* *printer* *200* *plotter*
256 *10000* *vector* *one bit* *8* *compressed*
dots per inch bitmap *blue* *pixel* *resolution*

A _____ image is an array of coloured dots, each of which is called a _____ thus a 100 by 100 image is composed of _____ pixels. The higher the _____ of a raster device, such as a _____, the better the image quality. Resolution is typically measured in _____. High quality images take up a lot of storage, which is why they are frequently _____ the colour of a pixel is usually specified as a combination of red, green and _____ intensities. In the case of a greyscale image, a pixel is typically represented by an 8 bit value, giving a range of _____ different grey levels. In a monochrome image each pixel is either black or white, and so can be represented by _____.

[5]

5 SEC '00-PAPER 1-Q4ACD

Mention **TWO** differences between each pair of terms:

a. MAIN and BACKING storage

[2]

b. OCR and OMR

[2]

c. A BAR-CODE READER and LIGHT-PEN

[2]

6 SEC '01-PAPER 1-Q6

The following are four peripheral devices:

Touch Screen

Scanner with Optical Character Recognition (OCR) software

Plotter

Optical Mark Reader

For each of these devices, give one application and why it is suitable

Touch Screen: _____

[2]

Scanner with OCR software _____

[2]

Plotter _____

[2]

Optical Character Reader _____

[2]

7 SEC '01-PAPER 1-Q8 (CONSULT CH 2)

Briefly explain the difference between the following pairs of terms and give an example of each.

Analogue device and Digital device.

[2]

Example _____ Example _____

[1]

System software and Application software

[2]

Example _____ Example _____

[1]

Optical storage medium and Magnetic storage medium

[2]

Example _____ Example _____

[1]

d. Vector device and Raster device

[2]

Example _____ Example _____

[1]

- (i) (a) What do you understand by the term *multimedia*? [1]
- (b) Name ONE software application type that uses multimedia. [1]
- (c) Name TWO typical devices of a multimedia equipped PC. [2]
- (d) '*Business may highly benefit from the application of multimedia*'. Discuss [3]

- (ii) High quality graphics are a must for a multimedia presentation.
 - (a) What is meant by a *pixel* in computer graphics? [1]
 - (b) The clarity of the image on the computer screen is specified by the resolution. How does *resolution* relate to pixels in computer graphics? [1]
 - (c) Explain what is meant by the *colour depth* of a computer image. [2]
 - (d) Given a screen resolution of 1024* 768 and a 24-bit colour representation, how many Megabytes of video RAM are used up to represent a full screen image. [3]
 - (e) Explain how the resolution of a screen and the number of colours it can display are related. [3]

(a) Define the terms input, output and storage devices. [2]

(b) This list consists of various devices.

- **OMR**
- **Floppy disk drive**
- **Touch Screen**
- **Hard disk drive**
- **Digital video camera**
- **Inkjet Printer**
- **Plotter**
- **Tape streamer**
- **Barcode reader**
- **DVD or CD-ROM**
- **Screen**
- **Joystick**

For each device above, state whether it is an *input*, *output* or *storage device*. [6]

Choose any **THREE** devices, **ONE** of each type, and describe briefly how they operate. State also **ONE** application of each device in your answer. [9]

A floppy disk must be **formatted** before any data can be stored on it.

(c) What do you understand by the highlighted term 'formatted'? [2]

(d) A double-density floppy disk has 80 tracks per side. There are 18 sectors (blocks) to a track. Given a block size of 512 bytes, work out the capacity of the floppy disk in Megabytes. [2]

"Optical disks are proving to be a versatile storage medium for software distribution"

(e) What is an optical disk"? [1]

(f) Identify *three* differences between a floppy disk and a CD-ROM disk [3]

(g) Why are optical disks suitable storage media for software distribution. [2]

Horizontal lines for writing answers.

13 SEC '04-PAPER 1 Q3

3. a. Give **ONE** example of the use of each of the following:
- i. Joystick

- ii. Magnetic Ink Character Reader

- iii. Optical Mark Reader

[3]

- b. Name **TWO** ways in which text can be input to a computer other than by a keyboard.

[2]

14 SEC '05-PAPER 1 Q1 (CONSULT CH 2)

State whether each of the following is TRUE or FALSE.

(a) The output from a plotter is an example of a soft copy.

_____ [1]

(b) Scanning technology is used to read the numbers at the bottom of cheques.

_____ [1]

(c) Mouse, touch screen and touch pad are all examples of optical character reading (OCR) devices.

_____ [1]

(d) Using USB (Universal Serial Bus) a peripheral device may be added to the computer system without having to restart the computer.

_____ [1]

(e) A temperature sensor used in a system to ensure a constant temperature in a medical laboratory is an example of direct data entry (DDE).

_____ [1]

16 SEC '05-PAPER 2B Q6

(a) Data may be collected using special data capture forms and is then input into a computer for processing. Since errors may occur while entering the data, the latter usually needs to be verified. Explain the term *data verification*. [2]

(b) Which of the following items are methods of *data collection* for input to a computer system?

- Survey Forms Hard Disk Magnetic Ink Print Printers ROM [2]

(c) The diagram on the right shows coded data that could be input into a computer. Which one of the following is the name given to this method of input?

- Cash-Card Reading
- Bar-Code Reading
- Mark Sensing



[1]

(d) Why would this method of input be suitable for use at a point of sale terminal? [1]

(e) What hardware is needed to enter the coded data into a computer? [1]

(f) Mention TWO other applications which could make use of this method of input [2]

(g) Mention an output device which is suitable for use by a:

- (i) blind person;
- (ii) deaf person.

[2]

(h) What do OMR, OCR and MICR stand for? [3]

Match each of the above terms, with a suitable application from the following:

- (i) reading data from cheques;
- (ii) marking a multiple choice exam paper;
- (iii) entering printed text into a word processor.

[3]

17 SEC '06-PAPER 1 Q3

Match the following secondary storage media by writing the statement number in the appropriate box:

1	Removable storage medium which can permanently hold large amounts of data.		Hard Disk
2	Removable storage medium which allows random access		Digital Versatile Disk
3	This storage medium allows serial access only.		Floppy Disk
4	Removable storage medium which can hold only small amounts of data.		Magnetic Tape
5	This storage medium allows sequential access as well as direct access		USB flash memory (pen drive)

[5]

For each of the following peripheral devices, mention ONE typical application and explain why the device is suitable for this application.

(a) Touch Screen

i) Application: _____

ii) Reason: _____ [2]

(b) Plotter

i) Application: _____

ii) Reason: _____ [2]

(c) Pen (pointing device)

i) Application: _____

ii) Reason: _____ [2]

(d) Joystick

i) Application: _____

ii) Reason: _____ [2]

19 SEC '06-PAPER 2B Q3 (CONSULT CH 2 & 3)

a) Mention THREE types of computers, giving an example of what each one is typically used for. [6]

b) An engine manufacturing factory uses a computer-aided-design and computer-aided manufacture (CAD/CAM) to design and make the parts for the engines. Describe TWO features of the CAD program that makes it suitable for designing the parts for engines. [4]

c) Name any TWO digital storage devices. [2]

d) State which of the following printers are *impact* and which are *non-impact* printers. [5]

- i. Thermal Printer
- ii. Daisy wheel Printer
- ii. Laser Printer
- iii. Ink-jet Printer
- iv. Dot-Matrix Printer

20 SEC '07-PAPER 1 Q2

Identify *one* suitable input device for directly capturing the following data:

- a) The product item code at a POS (point of sale) in a supermarket.

_____ [1]

- b) A very old photograph found in grandpa's old chest.

_____ [1]

- c) A menu selection at a cash point in a fast food outlet.

_____ [1]

- d) A hand-drawn sketch of a cartoon character.

_____ [1]

