

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 | |

| SEC'99-PAPER 2A-Q6A | |
|--|-------------------|
| i. What type of software is used to format a diskette?ii. Explain why a diskette needs to be formatted before it can be used for storing data.iii. Briefly describe what tasks are carried out during the formatting of a floppy diskette. | [1] [3] [3] |
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3 SEC'99-PAPER 2B-Q4 (CONSULT CH 2)

Briefly explain the difference between each pair of terms:

| α. | kilobyte and gigabyte | [2] |
|----|--------------------------------------|-----|
| b. | laptop computer and desktop computer | [3] |
| c. | main storage and backing storage | [3] |
| d. | a light pen and a barcode reader | [3] |
| e. | printer and plotter | [3] |
| f. | hard copy and softcopy. | [3] |
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4 SEC '00-PAPER 1-Q3

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

| Orange 256 dots per inch | 10000 | megahertz vector blue | one bit | 8 | compressed | |
|--------------------------------------|----------------|-----------------------------|----------------|--------------|-----------------------|-----|
| A | | image | is an array c | of coloure | ed dots, each of | |
| which is calle | ed a | | thus | s a 100 by | 100 image is com- | |
| posed of pixels. The higher the of a | | | | | | |
| raster device, | , such as a _ | | , the be | etter the in | mage quality. Reso- | |
| lution is typic | cally measu | red in | | | . High quality im- | |
| ages take up | a lot of stor | age, which is w | hy they are | frequentl | у | |
| the colour of | a pixel is u | sually specified | as a combin | nation of | red, green and | |
| | | intensitie | s. In the case | e of a gre | yscale image, a | |
| pixel is typic | ally represe | nted by an 8 bit | value, givii | ng a range | e of | |
| different grey | y levels. In a | a monochrome | image each | pixel is ei | ither black or white, | |
| and so can be | e represente | d 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: |
| |
| Scanner with OCR software |
| Plotter |
| |
| Optical Character Reader |
| |

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 Dig | gital device. | |
|--------------------------|-----------------------------|---|
| | | [|
| Example | Example | |
| System software and App | plication software | |
| | | [|
| Example | Example | [|
| Optical storage medium | and Magnetic storage medium | |
| Example | Example | |
| d. Vector device and Ras | ter device | |
| | | |
| Example | | |

| (i) | '01-PAPER 2A-Q4 | |
|------|--|-----|
| (i) | (a) What do you understand by the term <i>multimedia</i> ? | [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 <i>pixel</i> in computer graphics? | [1] |
| | (b) The clarity of the image on the computer screen is specified by the resolution. How does <i>resolution</i> relate to pixels in computer graphics? | [1] |
| | (c) Explain what is meant by the <i>colour depth</i> 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] |

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| 9 | SEC '01-PAPER 2B-Q5 | |
|---|--|-----|
| | (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 <i>input</i> , <i>output</i> or <i>storage device</i> . | [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] |
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10 SEC '02-PAPER 1-Q4 (CONSULT CH 2)

Milliseconds:- Hard Disk (Access Time)

Name one type of hardware associated with each of the following units of measurement. The first one is done for you.

| a. Gigahertz d. Gigabytes | b. Bits per second e. Characters per second | c. Dots per inch | [5] |
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11 SEC '02-PAPER 1-Q9

The following are four peripheral devices:

| Bar Code Reader |
|---|
| Digital Camera |
| Touch Pad |
| Joystick |
| For each of these devices, give one application and why it is suitable. |
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12 SEC '02-PAPER 2A-Q5 C,D,E,F,G

| (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] |
| "Opti bution | cal disks are proving to be a versatile storage medium for software distrin" | |
| (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] |
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A floppy disk must be **formatted** before any data can be stored on it.

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13 SEC '04-PAPER 1 Q3

| . a. | Give ONE example of the use of each of the following: i. Joystick |
|------|---|
| | ii. Magnetic Ink Character Reader |
| | iii. Optical Mark Reader |
| ь. | Name TWO ways in which text can be input to a computer other than by a keyboard. |
| | |

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. |
| |
| (b) Scanning technology is used to read the numbers at the bottom of cheques. |
| |
| (c) Mouse, touch screen and touch pad are all examples of optical character reading (OCR) devices. |
| |
| (d) Using USB (Universal Serial Bus) a peripheral device may be added to the computer system without having to restart the computer. |
| |
| (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). |
| |

15 SEC '05-PAPER 2A Q1A&B

| (b) A training institute is considering the implementation of a new method of capturing students' answers in an examination. (i) Suggest a suitable input device for such a situation. (ii) Briefly describe how it works. (iii) Name ONE type of exam question that would be suitable for grading using such a device. |
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| (iv) Name ONE type of exam question that would not be suitable for such a device. |

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| <u>,</u> | 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 <i>data verification</i> . | [2] |
| | (b) Which of the following items are methods of <i>data collection</i> 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 8 001675 302200 | [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] |

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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]

18 SEC '06-PAPER 1 Q5

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: | |
| (b) Plotter | |
| i) Application: | |
| ii) Reason: | |
| (c) Pen (pointing device) | |
| i) Application: | |
| ii) Reason: | |
| (d) Joystick | |
| i) Application: | |
| ii) Reason: | |

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 <i>impact</i> and which are <i>non-impact</i> printers. i. Thermal Printer ii. Daisy wheel Printer ii. Laser Printer iii. Ink-jet Printer iv. Dot-Matrix Printer | [5] |
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20 SEC '07-PAPER 1 Q2 Identify *one* suitable input device for directly capturing the following data:

| uci. | The analysis is a post it and a post in the first of a lab in a community of the same depth in the post in the first of a lab in a community of the same depth in the post in the post in the same depth in the post in the po | | | | |
|------|--|--|------------|--|--|
| | a) | The product item code at a POS (point of sale) in a supermarket. | F41 | | |
| | 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] [1] | | |

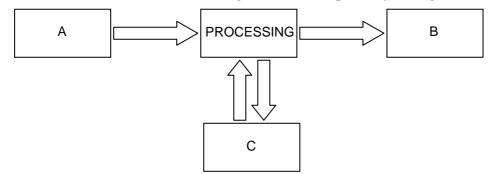
21 SEC '07-PAPER 2A Q3 (CONSULT CH 2)

| a) | Mention <i>THREE</i> types of <i>input devices</i> and give an application for each. | [6] |
|----|--|-----|
| b) | A computer can output both a hard-copy and a soft-copy. What is the difference between the two? | [1] |
| c) | Mention <i>ONE</i> device that outputs a hard-copy and <i>ONE</i> device that outputs a soft-copy. | [2] |
| d) | What unit of measurement is used to describe the processor's clock speed? What does the unit of measurement represent? | [2] |
| e) | Identify <i>TWO</i> differences between <i>Random Access Memory</i> (RAM) and <i>Read Only Memory</i> (ROM) | [2] |
| f) | Draw a block diagram showing how data flows between the main components of a computer system. | [4] |
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22 SEC '07-PAPER 2B Q2 (CONSULT CH 2)

a) Name A, B and C in the block diagram of a computer system given below. [3]



- b) Give THREE examples for each of the devices represented by A, B and C. [9]
- c) What is the difference between *Serial* and *Direct* methods of access? Give one example for each.[4]
- d) What does the term ALU stand for? [1]

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