



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE
NAME

CENTRE
NUMBER

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CANDIDATE
NUMBER

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INFORMATION TECHNOLOGY

0418/01

Paper 1

October/November 2008

2 hours

Candidates answer on the Question Paper.

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

DO NOT WRITE IN ANY BARCODES.

Answer **all** questions.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [] at the end of each question or part question.

For Examiner's Use

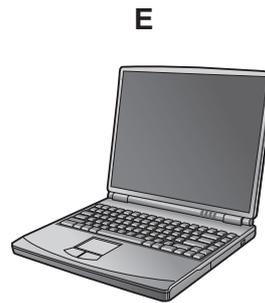
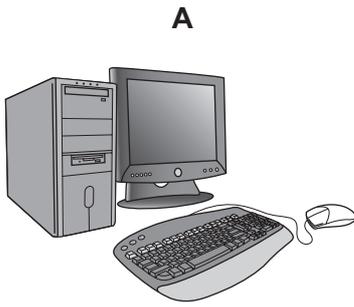
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This document consists of **15** printed pages and **1** blank page.



1 Name the objects **A**, **B**, **C**, **D** and **E** using the words from the list.

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- | | | | |
|-------------------|-------------------------|----------------------|------------------------|
| CD drive | Desktop computer | Graph plotter | Graphics tablet |
| Keyboard | Laptop computer | Laser printer | Light pen |
| Microphone | Mouse | PIN pad | Sensor |

A

C

E

B

D

[5]

2 Ring **two** items which are magnetic storage media.

- | | | |
|--------------------|------------------|---------------------|
| CD ROM | DVD ROM | DVD RW |
| Floppy disk | Hard disk | Memory stick |

[2]

3 Tick **true** or **false** next to each of these statements.

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	True	False
An OMR is used to convert scanned text into text which can be word processed.		
MICR is used to read information from bank cheques.		
A TFT monitor takes up less space than a CRT monitor.		
A magnetic stripe can store very large volumes of data.		
A graphics tablet is used to input freehand drawings.		

[5]

4 Draw five lines on the diagram to match the output device to the application.

Device	Type of Output
Dot matrix printer	high quality high volume output
Laser printer	high quality low volume output
Inkjet printer	multimedia presentation
Monitor	high quality very large printouts
Graph plotter	continuous stationery

[5]

5 Complete each sentence below using **one** item from the list.

- | | | |
|------------------------|----------------------|----------------------|
| bar code | chip | DVD ROM |
| floppy disc | keyboard | laser printer |
| magnetic stripe | magnetic tape | zip disc |

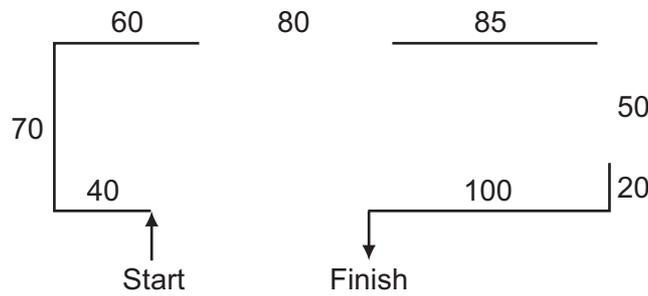
- (a) The most suitable storage medium for making system backups for a network is a
- (b) Data about the details of a PIN are stored on a bank card on a
- (c) Videos produced so that data can not be changed are stored on a
- (d) Details of a product are scanned at a POS from a

[4]

6 A floor turtle can use the following instructions:

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INSTRUCTION	MEANING
FORWARD n	Move n mm forward
BACKWARD n	Move n mm backward
LEFT t	Turn left t degrees
RIGHT t	Turn right t degrees
PENUP	Lift the pen
PENDOWN	Lower the pen



Complete the set of instructions to draw these shapes by filling in the blank lines.

PEN DOWN

LEFT 90

FORWARD 40

.....

.....

.....

.....

.....

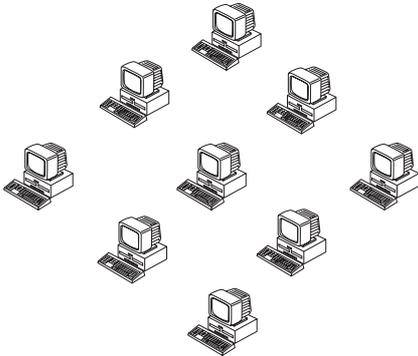
.....

[5]

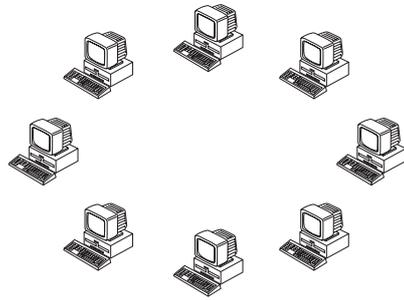
7 Draw in the communication lines in the following diagrams to make:

For
Examiner's
Use

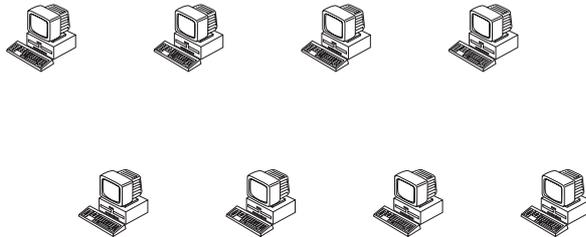
(a) a star network



(b) a ring network



(c) a bus network



[3]

8 Describe **two** advantages of using email compared with using the normal postal service.

1

.....

2

.....

[2]

9 Mohammed Hussain owns a bookshop whose sales have grown enormously. He now wants to have a computer system to take over the running of the shop. He has employed a systems analyst to advise him on the type of system he needs. Before she can recommend a new system she will need to analyse the current system.

(a) Describe **four** methods of researching/analysing and for each one write down an advantage of using that method.

Method 1

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.....

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Method 2

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.....

.....

Method 3

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.....

.....

Method 4

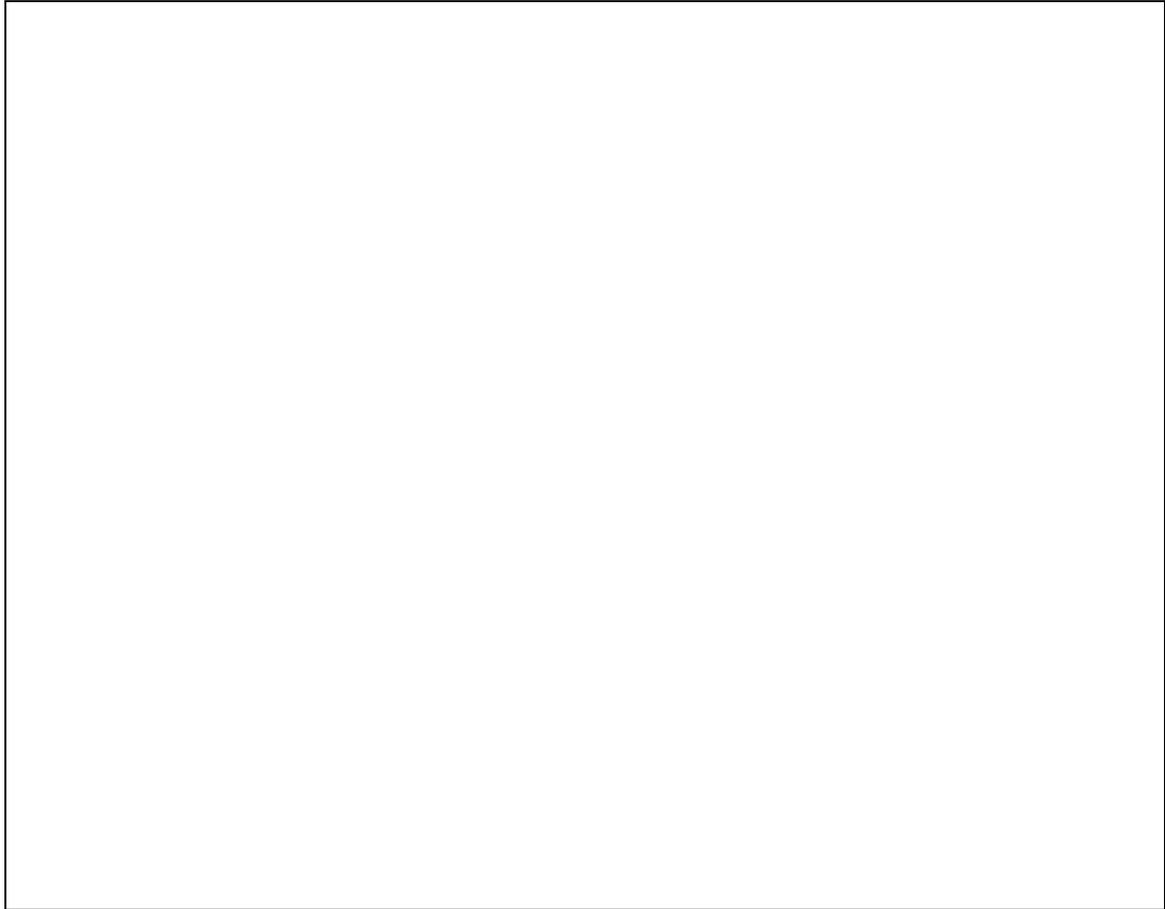
.....

.....

..... [8]

(b) The systems analyst decides that the system needs to have a screen input form to enter all the details of each book. Design a screen input form which could be used for typing in the details of **one** book.

*For
Examiner's
Use*



[5]

(c) The systems analyst now designs the file structure. Give **three** items which would need to be designed as part of the file structure.

1

.....

2

.....

3

.....

[3]

(d) After the system is designed it will be implemented. Name and describe **three** types of test data that will be used to test the system.

*For
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Use*

1

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.....

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2

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3

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[6]

(e) Name **three** methods of implementing this new system and for each one describe a disadvantage of using that method.

1

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2

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3

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[6]

(f) After the system is implemented it will be evaluated. Identify **three** items which should be present in the evaluation.

1

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2

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3

..... [3]

(g) Mohammed is worried that when he begins to use the new computer system continuously there may be health hazards. Describe **three** health hazards which he might meet.

1

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2

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3

..... [3]

10 Explain what pin pad and chip readers are and say how they are used.

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.....

..... [3]

11 Put a tick in the column which best describes the type of processing used in the following applications.

	On-line	Batch
Booking a holiday.		
Producing electricity bills.		
Using an ATM.		
Producing monthly payrolls.		

[4]

12 A sports shop owner uses a spreadsheet to calculate his profits. This is part of the spreadsheet.

	A	B	C	D	E
1	Item	Cost price	Selling Price	Profit per item	Number in stock
2	Kino Trainers	\$40	\$45	\$5	126
3	Goalagame Boots	\$38	\$44	\$6	145
4	Melchester Rovers shirt	\$65	\$78	\$13	104
5	IOM football	\$42	\$51	\$9	56
6	Beckett shinpads	\$32	\$40	\$8	101

(a) Give the cell reference of the cell that contains 126.

..... [1]

(b) Give the cell reference of a cell that contains text data.

..... [1]

(c) Write down the formula used to calculate the value in cell D2.

..... [1]

(d) When the spreadsheet was created a similar formula had to go in cells D3 to D6 Describe how to enter these formulae without typing them.

.....
.....
.....
.....
.....
..... [3]

(e) How many rows are shown in the spreadsheet?

..... [1]

(f) This spreadsheet is an example of a financial model. Give two examples of computer models, other than financial models.

1
.....
2
..... [2]

(g) Give **two** reasons why computer models are used rather than the real thing.

1
.....
2
..... [2]

(d) Give **two** advantages of using a computer to monitor the conditions rather than having it done by humans.

1

.....

2

..... [2]

15 A company wants all its offices to take part in a video conference.

(a) Describe what is meant by video conferencing.

.....

.....

.....

.....

.....

..... [3]

(b) Describe **two** advantages to the company of such a system.

1

.....

2

..... [2]

16 For each item of system documentation tick whether it is technical or user documentation.

	Technical	User
System flowcharts		
Program coding		
File structures		
Trouble-shooting guide		

[4]

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