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OCR
RECOGNISING ACHIEVEMENT

GENERAL CERTIFICATE OF SECONDARY EDUCATION

INFORMATION AND COMMUNICATION TECHNOLOGY
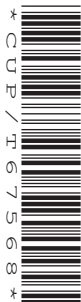
Paper 3
(Foundation Tier)

2359/01

**Wednesday 14 January 2009
Morning**

Duration: 1 hour

Candidate Forename		Candidate Surname	

Centre Number					Candidate Number				

INSTRUCTIONS TO CANDIDATES

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided, however additional paper may be used if necessary.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets **[ ]** at the end of each question or part question.
- The total number of marks for this paper is **60**.
- This document consists of **8** pages. Any blank pages are indicated.

OCR is an exempt Charity

Turn over

1 Tick **one** box in each row to show whether the statement is true or false.

Statement	True (✓)	False (✓)
A CAD package is used to create a database		
A graphics tablet is an output device		
A spreadsheet is used to control a patient's temperature in hospital		
A web browser is used to view pages on the internet		
A word processor is used to produce letters		

[5]

2 Circle **two** storage media.

DVD　　　　　**floppy disk**　　　　**keyboard**

plotter　　　　**printer**　　　　**scanner**　　　[2]

3 Draw **five** lines to match each task below to the most suitable data collection method.

Task		Data collection method
choose from a set of options at a POS terminal		Bar-code reader
input data from bank cheques		MICR
input multiple-choice responses from an exam paper		OCR
read data from the label of a tin of fruit		OMR
scan text for use in a word processor		Touch screen

[5]

4 Tick **one** box in each row to show whether the task is part of the Analysis phase or the Design phase of the systems life cycle.

Task	Analysis (✓)	Design (✓)
Choosing any validation or verification required		
Identifying the problem		
Outlining the user requirements		
Specifying report layouts for the new system		

[4]

5 Tick **three** applications which use on-line processing.

	✓
A computerised theatre booking system	
Printing payslips	
Processing cheques at a bank	
Processing electricity bills	
Purchasing an item at a POS terminal	
Withdrawing money from an ATM	

[3]

Turn over

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

Buying on the internet

The Computer Misuse Act

The Data Protection Act

Encryption

A firewall

.... makes the spreading of viruses illegal.

.... prevents unauthorised access to computer systems.

.... allows you to look at any data that an organisation might be keeping about you.

.... changes data so that it is unintelligible to unauthorised users.

.... has caused some high street shops to close.

[5]

7 When a book is borrowed from a library the librarian needs to input details from the borrower's card.

(i) Identify an input device, other than a keyboard, which would be most suitable for entering these details.

.... **[1]**

(ii) Give **two** reasons why this method is most suitable.

Reason 1 ....

....

Reason 2 ....

.... **[2]**

8 (a) Draw in the lines in the following diagrams to show

A star network	A ring network

A bus network
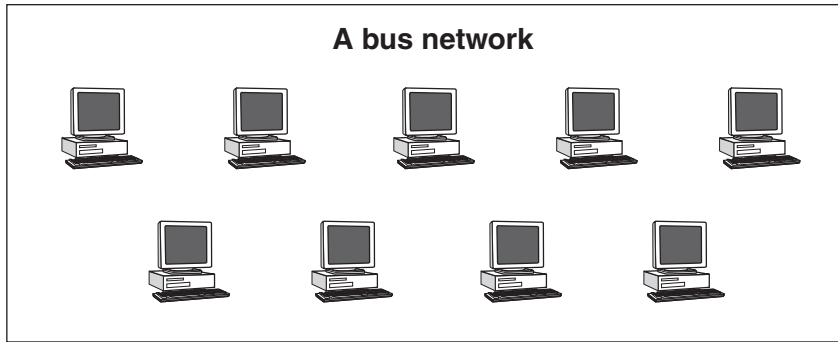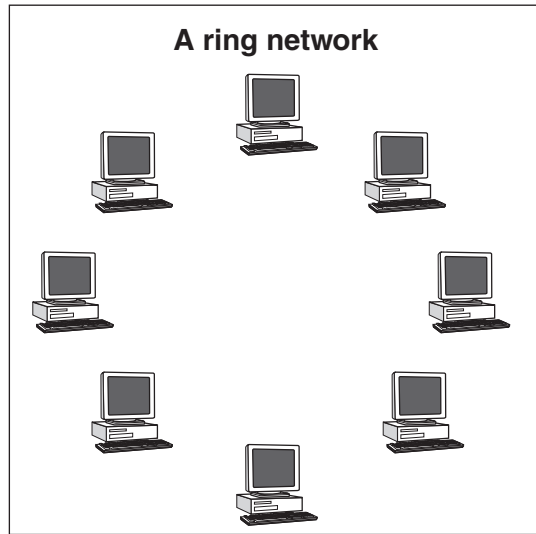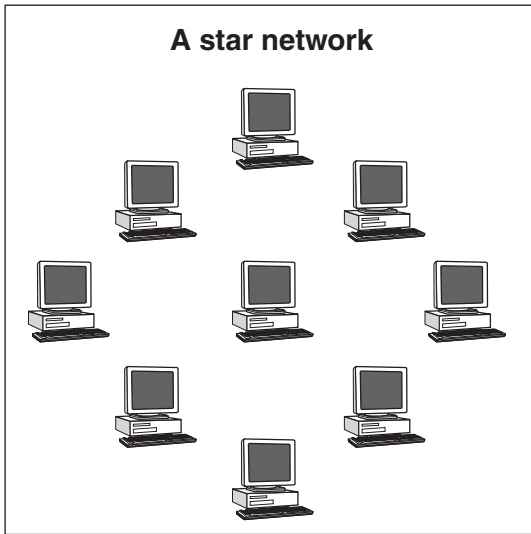
[3]

(b) Identify the device which is essential to the operation of a star network.

.... [1]

9 A doctor uses an expert system to help with the diagnosis of illnesses.

Identify **two** other applications which make use of expert systems.

Application 1 ....

....

Application 2 ....

.... **[2]**

Turn over

10 Tick **one** box in each row to show whether the statement is true or false.

Statement	True (✓)	False (✓)
A check digit checks how many digits there are in a number		
A length check is used to limit the number of characters entered		
A range check prevents numbers outside a range being entered		
An invalid character check makes sure names are correct		

[4]

11 A small business wants to convert its manual payroll system to a computerised one.

Tick **three** reasons why they would implement this using parallel running rather than direct changeover.

	(✓)
Documentation of the system is not required.	
It is easier to modify the system and still produce the payroll.	
Not all workers will need training. They can learn as they go along.	
Their total wage bill will be lower.	
There is no delay before the new system is fully operative.	
They still have the manual system to use if the new system fails.	

[3]

12 Identify the differences between RAM and ROM and state a use for each type of memory.

....

....

....

....

....

....

....

.... [4]

13 A car manufacturer has introduced the use of robots on its production lines.

(a) Describe **four** ways the workers have been affected by the use of robots.

1 ....

....

2 ....

....

3 ....

....

4 ....

.... **[4]**

(b) Identify **two** tasks that the robots might carry out.

Task 1 ....

....

Task 2 ....

.... **[2]**

(c) Give **one** advantage and **one** disadvantage to the company of using robots on its production lines.

Advantage ....

....

Disadvantage ....

.... **[2]**

14 Explain why a club might use mailmerge to produce letters to send to its members rather than typing each letter individually.

....

....

....

.... **[2]**

Turn over

15 An ICT system is to be introduced to deal with examination marks. Before the system is implemented it has to be tested.

Explain what is meant by normal test data, abnormal test data and extreme test data, using examples for an examination marked out of 60.

Normal test data ....

....

....

....

Abnormal test data ....

....

....

....

Extreme test data ....

....

....

.... **[6]**