

GENERAL CERTIFICATE OF SECONDARY EDUCATION
INFORMATION AND COMMUNICATION
TECHNOLOGY

Paper 3 (Foundation Tier)

2359/01

Candidates answer on the question paper.

OCR supplied materials:

None

Other materials required:

None

Tuesday 18 January 2011
Morning

Duration: 1 hour



Candidate forename					Candidate surname				
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Centre number						Candidate number			
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INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Answer **all** the questions.
- Do **not** write in the bar codes.

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.

- 1 Circle **two** input devices.

DVD drive	Graphics tablet	Magnetic stripe reader
Plotter	Printer	Speaker

[2]

- 2 Tick whether the following statements are true or false.

	True (✓)	False (✗)
A DTP package is used to manage personal finance		
A spreadsheet is used to produce a newspaper		
A web browser is used to view pages on the internet		
Measuring equipment is used to monitor temperature in a science experiment		
Presentation software is used to search stock records in a supermarket		

[5]

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

A bar code reader

A menu

MICR

OMR

..... is a system that is able to input pencil marks as data into a computer.

..... is used in supermarkets to input data from a cereal packet.

..... is used to input data from a bank cheque.

..... is an important part of a Graphical User Interface (GUI).

[4]

- 4 A new system is to be created for a company.

Tick whether the following take place during the Implementation phase or the Evaluation phase.

	Implementation (✓)	Evaluation (✓)
Comparing the solution with the original design		
Direct changeover		
Identifying the good and bad points of the final system		
Parallel running		

[4]

- 5 Tick **three** applications which use batch processing.

	✓
A bank cheque clearing system	
A computerised airline booking system	
Processing gas bills	
Purchasing an item on the internet using a bank card	
Scanning a set of OMR test answer sheets	
The use of robots on a car production line	

[3]

- 6 A company network manager needs to increase the security of data.

(a) Tick **three** pieces of advice the network manager would give company employees.

<input type="checkbox"/>
Always write your password down so you will remember it
Make sure you always log off at the end of a session
Tell a colleague what your password is in case you forget it
Use a combination of numbers and letters for your password
Use a password which is hard for other employees to guess
Use the name of the street you live in for your password

[3]

- (b) The network manager uses a number of methods to reduce security risks.

Draw **five** lines to match each method below to the risk it reduces.

Method	Reduced risk of:
Backup	Individuals accessing other users' data in a LAN
Encryption	Losing data
Firewall	Unreasonable data being entered
Passwords	Users being able to understand data they may have accessed illegally
Validation	Unauthorised access to the company network from the internet

[5]

- 7 The table shows a number of statements about internal memory.
Tick **one** box in each row to show whether the following statements refer to RAM or ROM.

	RAM (✓)	ROM (✓)
Data can be changed		
Data is still there when the computer is switched off		
Stores the data being processed		
Stores the instructions a computer needs when booting up		

[4]

- 8 A book is borrowed from a school library. The librarian asks the borrower to place their thumb against a thumbprint reader connected to a computer system.

- (a) Describe how the computer system uses the thumbprint data.

.....

[2]

- (b) Give **two** alternative methods, other than typing or using thumbprints, which would be suitable for entering the details of the borrower.

Method 1

.....

Method 2

.....

[2]

- (c) Give **two** benefits of using thumbprints rather than other methods.

Benefit 1

.....

Benefit 2

.....

[2]

- 9 Tick whether each of the following statements about verification is true or false.

	True (✓)	False (✗)
The double entry method requires the computer to compare the different versions		
Verification checks that data is copied correctly		
Verification makes sure that data is correct		
Visual checking requires the data on the screen to be read		

[4]

- 10 A large organisation which manufactures cars on a production line uses robots to perform certain tasks.

- (a) Give **three** benefits to the organisation of using robots.

1

.....

2

.....

3

.....

[3]

- (b) Give **three** drawbacks of using robots.

1

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2

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3

.....

[3]

- 11 Tick whether the following statements are true of star networks or ring networks.

	Star (✓)	Ring (✓)
Each computer is directly connected to two other computers		
If one computer fails the whole network crashes		
The network uses more cabling		
There is less disruption to the network when adding another computer		

[4]

- 12 Before creating a database the file structure has to be designed. The design may include codes to be used in certain fields.
Explain why data is coded.

.....

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.....

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.....

.....

[4]

- 13 (a) A computer system is used to control the growing conditions in a greenhouse.
Name **two** sensors that will be needed in this system.

1

2 [2]

- (b) For **one** of these sensors describe how the computer will use feedback to control the growing conditions.

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[4]



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