

GENERAL CERTIFICATE OF SECONDARY EDUCATION
INFORMATION AND COMMUNICATION
TECHNOLOGY
 Paper 3 (Higher Tier)

2359/02

Candidates answer on the question paper.

OCR supplied materials:

None

Other materials required:

None

Thursday 16 June 2011**Afternoon****Duration: 1 hour 15 minutes**

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** Data is often encrypted before it is transferred across the internet.
Tick whether each of the following statements about encryption is true or false.

	True (✓)	False (✗)
Data is encrypted to prevent viruses		
Encryption prevents hackers from deleting the data		
Encryption requires a key to decrypt the data		
Encryption scrambles the data so that it cannot be understood		

[4]

- 2** Name and describe **two** of the main features of a Graphical User Interface (GUI).

1

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[4]

- 3** Other than unemployment, identify **two** changes in employment patterns for bank workers due to the introduction of home banking.

1

[21]

- 4 Organisations that collect personal data have a legal obligation to protect that data. Identify **four** principles from the Data Protection Act which the organisations must follow.

1

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2

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3

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4

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[4]

- 5 A company needs to update its computer system. A new system has been developed and tested. Name and describe **three** alternative strategies which could be used to implement the new system.

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[6]

- 6 A group of car mechanics have asked a computer company to develop an expert system for them.

Identify the stages in the development of this expert system.

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[4]

- 7 Many supermarkets now have a website which allows customers to shop online.

(a) Describe the advantages of online shopping **to the customer**.

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[3]

(b) Describe the advantages of online shopping **to the supermarket**.

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[3]

- 8** Banks make use of both batch processing and online processing.
Describe these types of processing, using examples of situations where each would be used in banking.

[6]

. [6]

- 9 The table below shows some of the data from a flight booking database. Compare the effectiveness of different validation checks in trapping errors within the Customer booking reference field.

Customer booking reference	Flight code	Baggage allowance (kg)
3944173473	BA032	30
4765230981	SA234	20
2893729718	SU243	25
3512987256	EG117	25
9123754800	QA345	22

[6]

- 10** A supermarket is updating its computer system and will be replacing the checkout operators' POS terminals. The supermarket has employed a systems analyst to investigate the current system.

- (a) Describe the **disadvantages** of the different methods the systems analyst could use to collect information about the existing system.

[6]

. [6]

- (b) Describe the advantages and disadvantages of the different input devices which could be used to input data about the supermarket goods.

[6]

. [6]

- 11 A games software development company allows its employees to work from home and supplies all the hardware and software needed.
Discuss the advantages and disadvantages to the company of this arrangement.

[6]

- [6]



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