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**GENERAL CERTIFICATE OF SECONDARY EDUCATION  
INFORMATION AND COMMUNICATION  
TECHNOLOGY**

**2359/02**

Paper 3 (Higher Tier)

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.

2

- 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).

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

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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.

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4 .....

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

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..... [3]





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.

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

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