OCR
RECOGNISING ACHIEVEMENT

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GENERAL CERTIFICATE OF SECONDARY EDUCATION

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 3: (Higher Tier)

2359/02

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.

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.

Turn over

1 Tick **four** requirements of the Data Protection Act.

Requirement	**✓**
Individuals have a right to view the information held about them.	
Personal data shall be accurate and, where necessary, kept up to date.	
Personal data shall be adequate, relevant and not excessive in relation to the purpose or purposes for which they are processed.	
Personal data shall be kept for 100 years.	
Personal data shall be obtained for any purpose the data holder feels is necessary.	
Personal data shall be processed fairly and lawfully.	
Personal data shall be processed without considering the rights of data subjects.	

[4]

2 Describe how each of the following methods are used to verify data.

(a) Double entry ....

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.... **[2]**

(b) Visual checking ....

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.... **[2]**

3   Many car production lines use robots.

(a) Tick **three advantages** of using robots instead of humans.

	✓
Cars produced by robots are always perfect	
Robots can work 24 hours a day, 7 days a week	
Robots do not need maintaining	
Robots do not need paying	
Robots never break down	
The finished product is more consistent	

[3]

(b) Tick **three disadvantages** of using robots instead of humans.

	✓
Humans are more accurate than robots	
Humans are quicker than robots	
Humans need to take breaks	
Robots are expensive to buy and set up	
Robots are not adaptable to a sudden change of situation	
Wrong programming can mean several cars are wrongly produced before the situation is noticed	

[3]

Turn over

4 A teacher has asked her students to produce a multimedia presentation about volcanoes.
Explain how multimedia features, **not** available in a hard copy presentation, could be used to enhance the presentation.

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.... **[6]**

5 A large supermarket chain has introduced online shopping.
For each type of job given below describe how the workers might be affected.

Checkout operator ....

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Manager ....

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IT staff ....

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.... **[6]**

6 A small business has decided to employ a systems analyst to help them update their computer system.

(a) After the system has been analysed and designed it will be implemented.

Describe the following methods of implementation.

(i) Parallel running ....

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.... **[2]**

(ii) Direct changeover ....

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.... **[2]**

(b) The systems analyst will produce documentation for the system.
Describe **three** items that would be present in the documentation.

Item 1 ....

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Item 2 ....

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Item 3..

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.... **[6]**

7 Describe ring and star network topologies, giving a relative advantage of each.

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8 Discuss the advantages and disadvantages of OCR, MICR and OMR as methods of data collection.

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.... **[6]**

9 A sports club has decided to bring its computer records up to date. A paper data capture form is to be distributed to members to see if any of their details have changed.

Describe the main design features that should be considered to make the data capture form easy to complete accurately.

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.... **[4]**

10 The increased use of ICT in business and services has led to many organisations allowing their workers to work from home.

Discuss the advantages and disadvantages to the workers of this development.

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[5]

Turn over

11 All computers and microprocessors use an immediate access store.

Explain why there needs to be both RAM and ROM in this memory.

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.... **[5]**