



Centre Number

71	
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Candidate Number

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ADVANCED  
General Certificate of Education  
2013

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**Information and  
Communication Technology**

Assessment Unit A2 1

*assessing*

Module 3: Information Systems

[AW211]

MONDAY 3 JUNE, AFTERNOON

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**MV18**

**TIME**

2 hours, plus your additional time allowance.

**INSTRUCTIONS TO CANDIDATES**

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Write your answers in the spaces provided in this question paper.

Complete in blue or black ink only.

Answer **all seven** questions.

**INFORMATION FOR CANDIDATES**

The total mark for this paper is 120 including a maximum of 5 for quality of written communication.

Figures in brackets printed at the end of each question indicate the marks awarded to each question or part question.

**BLANK PAGE**

1 Most organisations have replaced standalone computers with a network.

(a) Identify **three** advantages of a network over standalone computers. [3]

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

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(b) Explain what is meant by a peer-to-peer network. [3]

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**(b)** Name and describe one other method which could be used to develop this system. [4]

Name \_\_\_\_\_

Description \_\_\_\_\_

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(c) CASE tools can be used during system development. Name and describe **three** CASE tools used during system development. [9]

Name \_\_\_\_\_

Description \_\_\_\_\_

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Name \_\_\_\_\_

Description \_\_\_\_\_

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Name \_\_\_\_\_

Description \_\_\_\_\_

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3 Human computer interaction is an important part of system design.

(a) Describe **three** main features of a graphical user interface (GUI). [6]

1. \_\_\_\_\_

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2. \_\_\_\_\_

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3. \_\_\_\_\_

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**(b)** Describe how psychological factors can influence human computer interaction. [4]

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4 Training and user support are provided for an information system.

(a) Describe **two** advantages of an electronic user guide over a printed manual. [4]

1. \_\_\_\_\_

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\_\_\_\_\_

2. \_\_\_\_\_

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An interactive DVD can be used to provide training.

**(b)** Describe how data is written onto a DVD. [4]

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**(c)** Explain how an interactive DVD can be used to train users of an information system. [4]

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**5 (a)** Organisations using ICT must comply with all relevant legislation.

**(i)** Describe the main features of the Copyright, Designs and Patents Act. [4]

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(ii) Explain the main implications of Data Protection legislation for an organisation. [4]

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**(b)** Many organisations require their employees to sign an acceptable use policy regarding ICT.

Describe the purpose of an acceptable use policy. [4]

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(c) Describe **three** reasons why an ICT professional should become a member of the Association for Computing Machinery (ACM). [6]

1. \_\_\_\_\_

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2. \_\_\_\_\_

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3. \_\_\_\_\_

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**6** A retailer uses a database system for customer orders and sales.

**(a)** Describe **two** drawbacks with data which is not normalised. [4]

1. \_\_\_\_\_

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2. \_\_\_\_\_

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An invoice is produced for each sale.

## INVOICE

**Invoice ID**      **12345**

**Invoice date** **02/05/13**

**Customer ID**    **C3215**

**Name**            **Green**

**Address**        **12a Old Row**  
**Belfast**

<b>Item ID</b>	<b>Description</b>	<b>Unit price</b>	<b>Quantity</b>
<b>M8765</b>	<b>Motherboard</b>	<b>£36.99</b>	<b>1</b>
<b>H3921</b>	<b>External HD</b>	<b>£52.99</b>	<b>2</b>
<b>P6124</b>	<b>Power supply</b>	<b>£57.99</b>	<b>1</b>

**Invoice total: £200.96**

**(b)** Produce an Entity Relationship Model, which does not include a many-to-many relationship, for this invoice. [7]



## INVOICE

Invoice ID 12345

Invoice date 02/05/13

Customer ID C3215

Name Green

Address 12a Old Row  
Belfast

Item ID	Description	Unit price	Quantity
M8765	Motherboard	£36.99	1
H3921	External HD	£52.99	2
P6124	Power supply	£57.99	1

Invoice total: £200.96

(d) The retailer uses an expert system for planning deliveries to customers.

Name and describe **three** main components of an expert system. [9]

Name \_\_\_\_\_

Description \_\_\_\_\_

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Name \_\_\_\_\_

Description \_\_\_\_\_

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Name \_\_\_\_\_

Description \_\_\_\_\_

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**THIS IS THE END OF THE QUESTION PAPER**

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For Examiner's use only	
Question Number	Marks
1	
2	
3	
4	
5	
6	
7	
QWC	

<b>Total Marks</b>	
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Examiner Number

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