

Rewarding Learning

# ADVANCED General Certificate of Education 2013

		Cer	ntre Nu	umber
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## Information and Communication Technology

Assessment Unit A2 1

assessing

Module 3: Information Systems

[AW211]

**MONDAY 3 JUNE, AFTERNOON** 



#### 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. Do not write in pencil or with a gel pen.

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 down the right-hand side of pages indicate the marks awarded to each question or part question.

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1	Mos	st organisations have replaced standalone computers with a network.	Examiner Only  Marks Remark
	(a)	Identify three advantages of a network over standalone computers.	
		1	
		2	
		3	
		[3]	
	(b)	Explain what is meant by a <b>peer-to-peer network</b> .	
		[3]	
	(c)	Communication standards are required when data is transmitted over	
	(0)	a network.	
		(i) Explain the need for communication standards.	
		[2]	
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_	(ii)	Describe the Open Systems Interconnection (OSI) model.	Examin Marks	er Only Remark
		[4]		
(d)	Exp	plain how auditing software is used on a computer network.		
		[4]		
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(e)	A network is more vulnerable to viruses than a suite of standalone computers. Explain why.	Examiner Marks R
	[3]	
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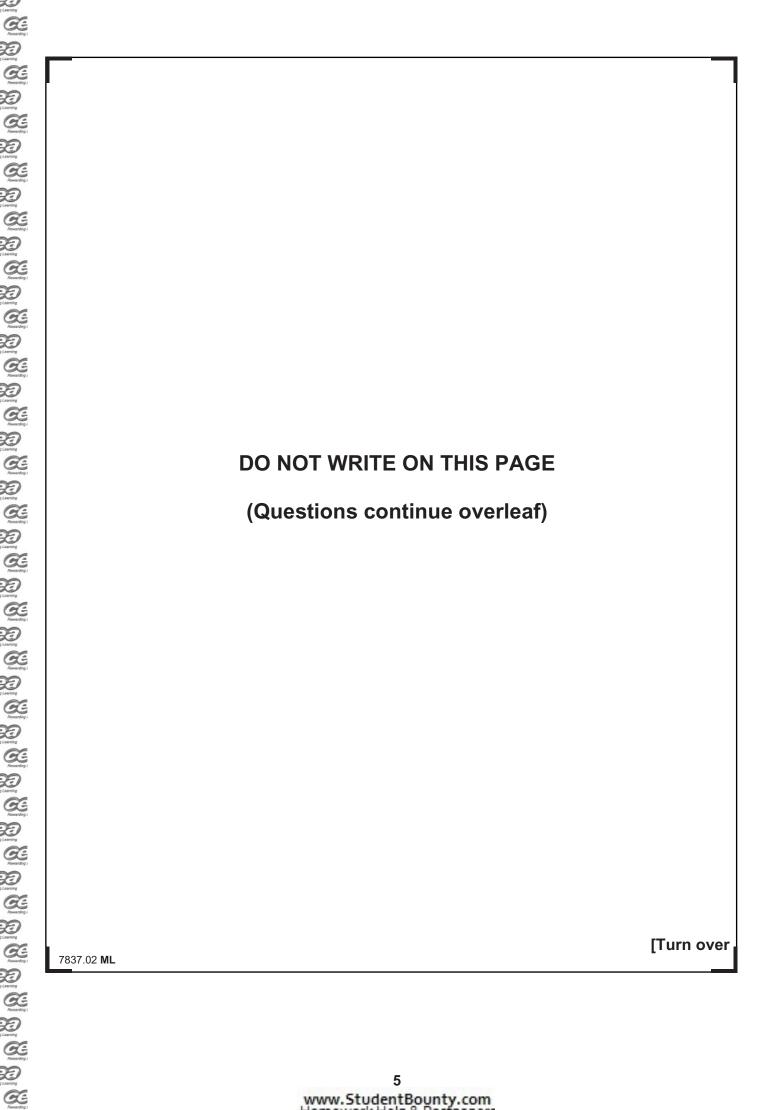
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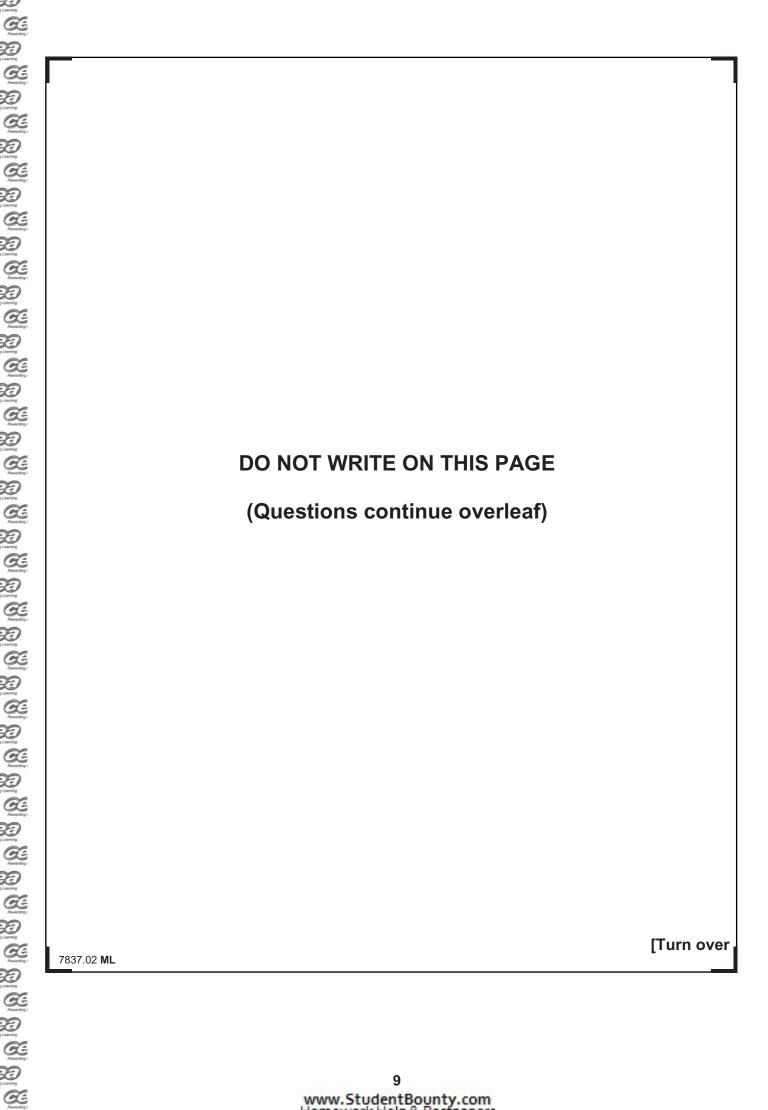
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2	An d	organisation develops a new information system using RAD.	Examiner Only  Marks Remark
(	(a)	Describe how the system could be developed using RAD.	
		[4]	
(	(b)	Name and describe one other method which could be used to develop this system.	
		Name	
		Description	
		[4]	
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	(c)	CASE tools can be used during system development. Name and describe <b>three</b> CASE tools used during system development.	Examin Marks	er Only Remark
		Name		
		Description		
		Name		
		Description		
		Name		
		Description		
		[9]		
			Total Qu	estion 2
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3	Hur	nan computer interaction is an important part of system design.		Examin Marks	er Only Remark
	(a)	Describe <b>three</b> main features of a graphical user interface (GUI).			
		1			
		2			
		2			
		3			
			[6]		
	(b)	Describe how psychological factors can influence human computer interaction.			
				Total Qu	estion 3
			[4]		
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4	Trai	ning and user support are provided for an information system.	Examin Marks	er Only Remark
	(a)	Describe <b>two</b> advantages of an electronic user guide over a printed manual.		
		1		
		2		
		[4]		
		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.	Examin Marks	er Only Remark
	[4]		
		Total Qu	uestion 4
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5	(a)	Org	anisations using ICT must comply with all relevant legislation.	Examin Marks	er Only Remark
		(i)	Describe the main features of the Copyright, Designs and Patents Act.		
			[4]		
		(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.	Examiner Only  Marks Remark
	Describe the purpose of an acceptable use policy.	
	[4]	
(c)	Describe <b>three</b> reasons why an ICT professional should become a	
	member of the Association for Computing Machinery (ACM).  1	
	2	
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	3	
		Total Question 5
	[6]	
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(b)	Produce an Entity Relationship Model, which does not include a many-to-many relationship, for this invoice.	Examii Marks	ner Only Remark
	[7]		
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your work					
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				[6	6]
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		INVOICE			
Invoice ID	12345		Invoice	date 02/05/13	
	ID C3215				
Name Address	Green 12a Old Row Belfast	ı			
Item ID	Description	Unit price	Quantity		
M8765	Motherboard	£36.99	1		
H3921	External HD	£52.99	2		
P6124	Power supply	£57.99	1		
			Invoice t	total: £200.96	

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(d)	The retailer uses an expert system for planning deliveries to customers.		Examir Marks	ner Only Remark
	Name and describe <b>three</b> main components of an expert system.			
	Name			
	Description			
		_		
	Name			
	Description			
	N.			
	Name			
	Description			
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			Total Qu	uestion 6
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	/- \	Fundain have developments in IOT bases and III II I		E	Ol	
7	(a)	Explain how developments in ICT have enabled employees to work from home.		Examine Marks	er Only Remark	
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			_			
			[5]			
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(b)	The publisher of a newspaper plans to make greater use of the Internet.	Examiner Only  Marks Remark
	Write a report for the Board of Directors evaluating:	
	<ul> <li>The impact on the newspaper's circulation.</li> <li>The economic implications.</li> </ul>	
		Total Question 7
		Quality of written communication
	[8]	communication
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### DO NOT WRITE ON THIS PAGE

	For Examiner's use only			
Question Number	Marks			
1				
2				
3				
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5				
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Total Marks

**Examiner Number** 

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