

	Cei	entre Numbe			

Rewarding Learning

ADVANCED General Certificate of Education January 2014

С	andid	ate Nı	ımber

Information and Communication Technology

Assessment Unit A2 1 assessing Module 3: Information Systems



[AP211]

AP211

MONDAY 20 JANUARY, MORNING

TIME

2 hours.

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 six 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	A b	usiness uses a client server network.		Examin Marks	er Only Remark
	(a)	Identify three advantages of a network compared to standalone computers.			
		1			
		2			
		3			
	(b)	Describe the main features of a client server network.			
			[4]		
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The network uses wireless communication.		Examiner
		Marks R
(c) Describe two benefits to the company communication.	of using wireless	
1		
2		
(d) Describe one drawback to the compan communication.	y of using wireless	
	y of using wireless	
communication.		

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	work.	Marks	s Re
(e)	If even parity is being used, explain the errors in each of the following bytes.	3	
	10101011		
		_	
		_	
	10101010	_	
		_	
		_	
	[4	4]	
(f)	Name and describe one other way of detecting errors in data transmission.		
	Name	_	
	Name Description	_	
		- - -	
		- - - -	

Research

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(a)	Describe how a system is developed using RAD.		
		_ [0]	
(b)	Name and describe one other approach to system development.		
(b)	Name and describe one other approach to system development. Name		
(b)	Name		
(b)			
(b)	Name		

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The new system undergoes testing.		Examiner On Marks Rem
(c) Explain what is meant by:		Marks Kerri
Alpha testing		
Beta testing		
	[4]	
Technical documentation was produced during development of the system.	ne new	
(d) Identify four of the contents of technical documentation.		
		1
1		
2		
2. 3.		
2		
2. 3.		
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Research

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(e)	Describe the role of the project manager during the development of an information system.	Examin Marks	er Only Remark
	[4]		
		Total Qu	estion 2
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Reading I



_					
3	The	user interface is an important part of an information system.		Examine Marks	r Only Remark
	(a)	Explain the purpose of the user interface.			
			[0]		
			[2]		
	(b)	Describe the main features of a natural language interface.			
	, ,				
			[4]		
8999)				

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considered during the design of a user interface.	Marks
Factor	
Description	
Factor	
Description	
	[8]

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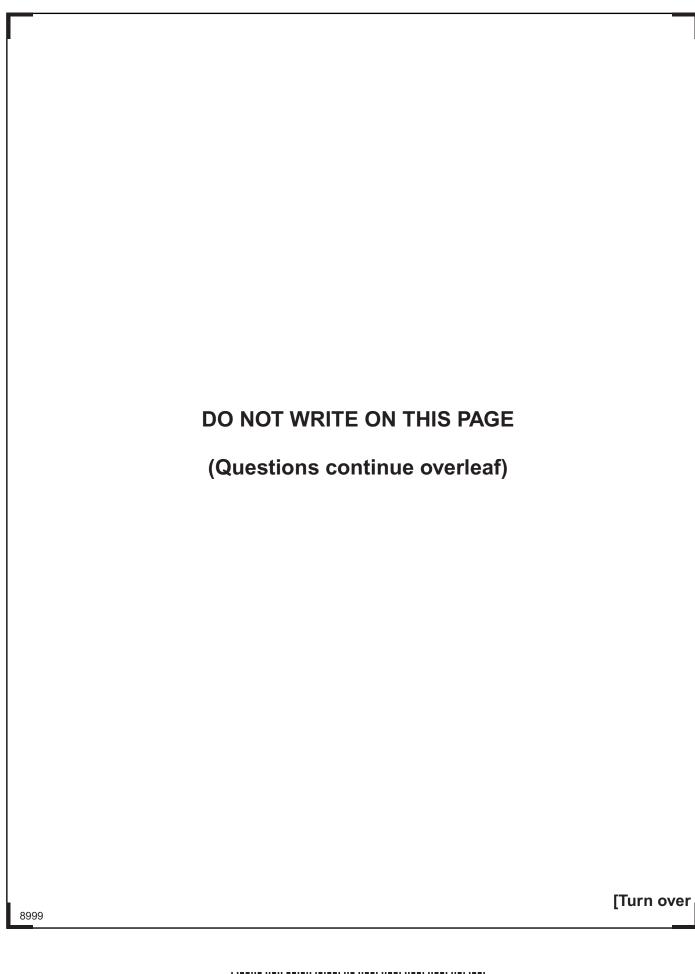


(d)	The user interface of a particular information system includes a touch screen.	Examiner On Marks Rem
	Describe the main features of touch screen technology.	
	[4]	
(e)	Describe the main features of an on-line course which make it suitable for training users of a new information system.	
	[4]	
		Total Questio

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Reading I



Le	gislation relating to ICT includes the Computer Misuse Act.		Examiner O Marks Rer
(a)	Identify two offences included in the Computer Misuse Act.		
	1		
	2		
(b)	Name and describe the purpose of two other laws relating to ICT.		
Na	me		
Pu	rpose		
Na	me		
	rpose		
		[6]	
		_ [0]	

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	Org	ganisations must ensure that employees make appropriate use of ICT.	Examin Marks	er Only Remark
	(c)	Describe the main contents of a typical acceptable use policy relating to ICT.		
		[4]		
	(d)	The ICT staff of a particular organisation are encouraged to become members of the British Computer Society.		
		Explain how staff will benefit from membership of the BCS.		
		[4]	Total Qu	estion 4
8999)		[Tur	n over

Reading I



102 Green Belfast 02/05/13 £50 501 Bay Tree 10 503 Fern 4 4 4 4 4 4 4 4 4	₋oan ID	Customer ID	Customer Name	Address	Loan Date	Total Cost	Plant ID	Plant Name	Quantity
02 104 White Lisburn 03/05/13 £25 503 Fern 3 03 103 Brown Lisburn 03/05/13 £75 503 Fern 4 501 Bay Tree 2 504 Rose 4 04 102 Green Belfast 03/05/13 £35 504 Rose 10 503 Fern 2 503 Fern 2 (a) Explain the drawbacks of using a flat file in this case.	001	102	Green	Belfast	02/05/13	£50			-
103									
Sol Bay Tree 2						+			
(a) Explain the drawbacks of using a flat file in this case.)3	103	Brown	Lisburn	03/05/13	£75			
4 102 Green Belfast 03/05/13 £35 504 Rose 10 503 Fern 2 (a) Explain the drawbacks of using a flat file in this case.								_	
(a) Explain the drawbacks of using a flat file in this case.		102	Groon	Polfact	03/05/13	£25			
(a) Explain the drawbacks of using a flat file in this case.	04	102	Green	Deliasi	03/03/13	LSS			
[4									
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(DBMS		
(a) 140	ormalise the data in the loan table to 3NF showing all your work.	
	[6]	

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	(c)	Explain the role of the Database Administrator (DBA).		Examine Marks	er Only Remark
			_ [4]		
	(d)	End users can maintain the data in the database.			
		Identify two other facilities the DBMS will provide for end users.			
		1			
		2			
			_ [2]		
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Remarks



(e)	Customers can reserve plants in advance.	Examin Marks	er Only Remark
	Explain why real-time processing is required in this case.		
	[4]		
(f)	Visitors to the garden centre can use an expert system to select suitable plants.		
	Describe how garden centre staff could assist the development of the expert system.		
	[4]		
		Total Qu	estion 5
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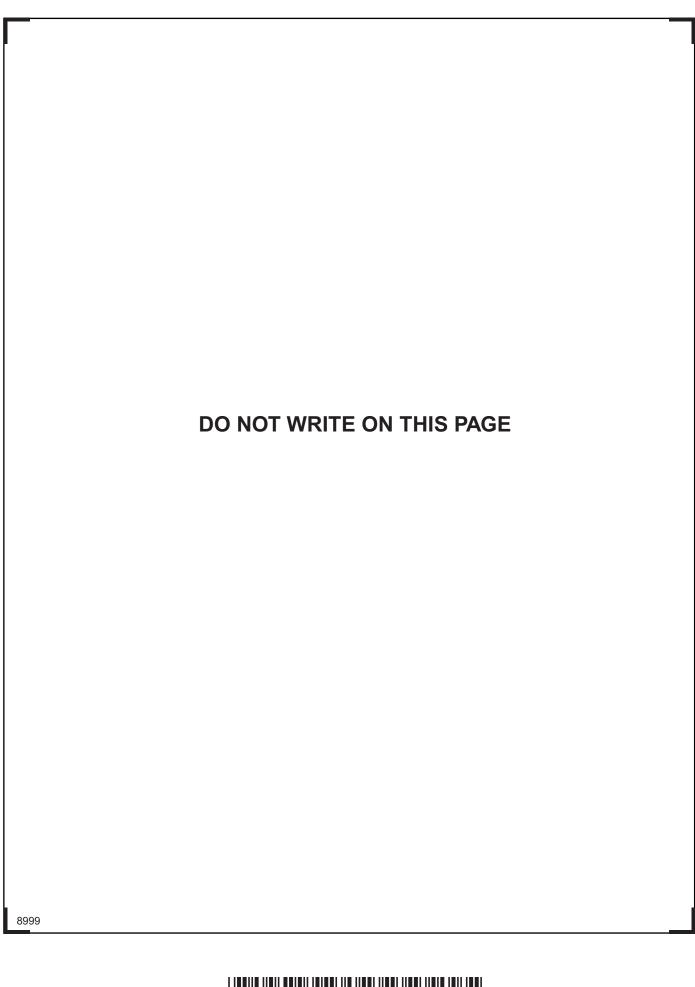


6	Supermarkets use Management Information Systems (MIS) to ensure they have exactly the right levels of stock at all times.	Examiner Only Marks Remark
	However, consumer groups are concerned about the impact of this overreliance on ICT.	
	Write a report describing:	
	 How supermarkets use MIS to optimise stock levels The risks involved in optimising stock levels in this way 	
		Total Question 6
		Quality of written communication
	[10]	
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For Examiner's use only		
Question Number	Marks	
1		
2		
3		
4		
5		
6		
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Total Marks

Examiner Number

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