

Centre Number

Rewarding Learning

ADVANCED General Certificate of Education January 2014

C	andid	ate Nu	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.



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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(a)	Describe two benefits to the company of voice wireless		
	Describe two benefits to the company of using wireless communication.		
	1		
	1		
	2		
		[4]	
		[4]	
(-I\			
	Describe one drawback to the company of using wireless		
	Describe one drawback to the company of using wireless		
	Describe one drawback to the company of using wireless communication.		
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	Describe one drawback to the company of using wireless communication.		



		ity bits are used to detect errors during data transmission over the work.	Examin Marks	ner Only Remark
	(e)	If even parity is being used, explain the errors in each of the following bytes.		
		10101011		
			-	
		10101010		
			-	
			-	
		[4]		
	(f)	Name and describe one other way of detecting errors in data transmission.		
		Name	-	
		Description	-	
		[4]	Total Qu	rection 1
			Total Qu	lestion i
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(RA	nformation system is developed using rapid application developme	nt	Examine Marks	r On Rem
(KA	D).			
(a)	Describe how a system is developed using RAD.			
		[5]		
(b)	Name and describe one other approach to system development.			
	Nama			
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The	e new system undergoes testing.	Examin Marks	er Onl
(c)	Explain what is meant by:	- Walks	Kell
	Alpha testing	-	
		-	
		-	
		-	
	Beta testing	-	
		-	
		-	
	[4]		
	chnical documentation was produced during development of the new		
syst	tem.		
syst	Identify four of the contents of technical documentation.		
syst (d) 1	Identify four of the contents of technical documentation.	-	
syst (d) 1 2	Identify four of the contents of technical documentation.	-	
syst (d) 1 2 3	Identify four of the contents of technical documentation.	-	
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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]		
		Tabal O	
		Total Qu	estion 2
		[Tue	n over
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3	The user interface is an important part of an information system.		Examiner C	Only mark
	(a) Explain the purpose of the user interface.			
		[2]		
	(b) Describe the main features of a natural language interface.			
		[4]		
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(c)	Name and describe two psychological factors which should be considered during the design of a user interface.	Examin Marks	er Only Remark
	Factor		
	Description		
	Factor		
	Factor		
	Description		
	[8]		
		[T	n 61/2"
		jiur	n over



(d) The user interface of a particular information system includes a touch screen.	Examiner Only Marks Remark
	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 Question 3
		Total Question 3
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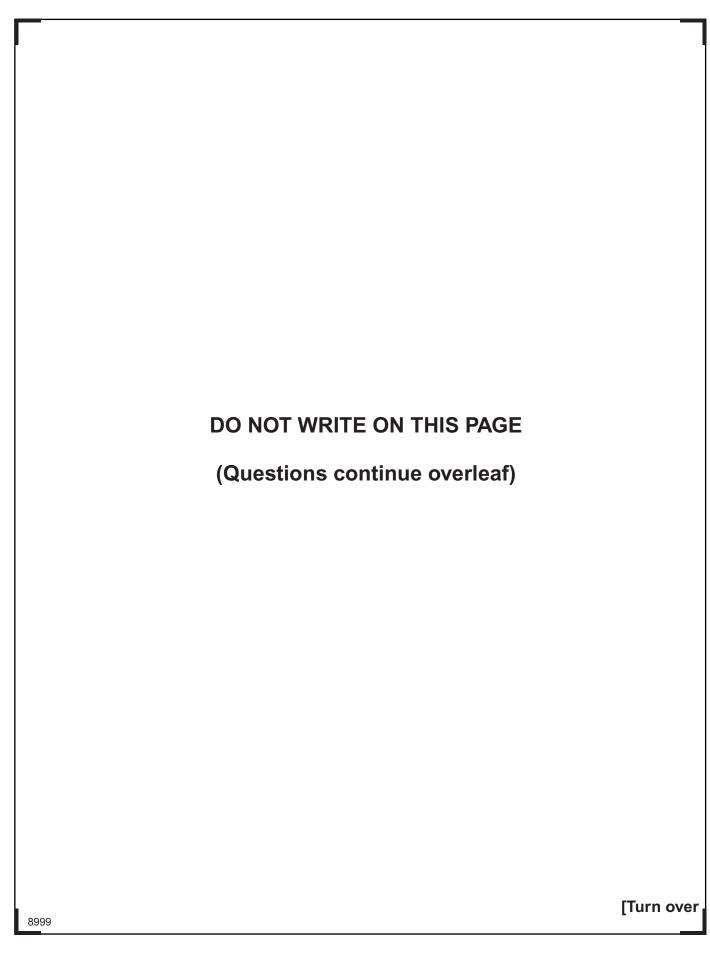
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4	Leg	islation relating to ICT includes the Computer Misuse Act.		Examin Marks	er Only Remark
	(a)	Identify two offences included in the Computer Misuse Act.			
		1			
		2			
		Name and describe the purpose of two other laws relating to ICT.			
		me			
	Pur	pose			
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			[6]		
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	Org	anisations 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
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oan ID	Customer ID	Customer Name	Address	Loan Date	Total Cost	Plant ID	Plant Name	Quantity
001	102	Green	Belfast	02/05/13	£50	501	Bay Tree	10
						503	Fern	4
02	104	White	Lisburn	03/05/13	£25	503	Fern	3
003	103	Brown	Lisburn	03/05/13	£75	503	Fern	4
						501	Bay Tree	2
						504	Rose	4
004	102	Green	Belfast	03/05/13	£35	504	Rose	10
						503	Fern	2

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(b) Norr	malise the data in the loan table to 3NF showing all your work.	
		[6]



	(c)	Explain the role of the Database Administrator (DBA).		Examiner Only Marks Remark
	(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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(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.		
	·		
	[41]		
	[4]	Total Qu	estion 5
		lTur	n over
9			



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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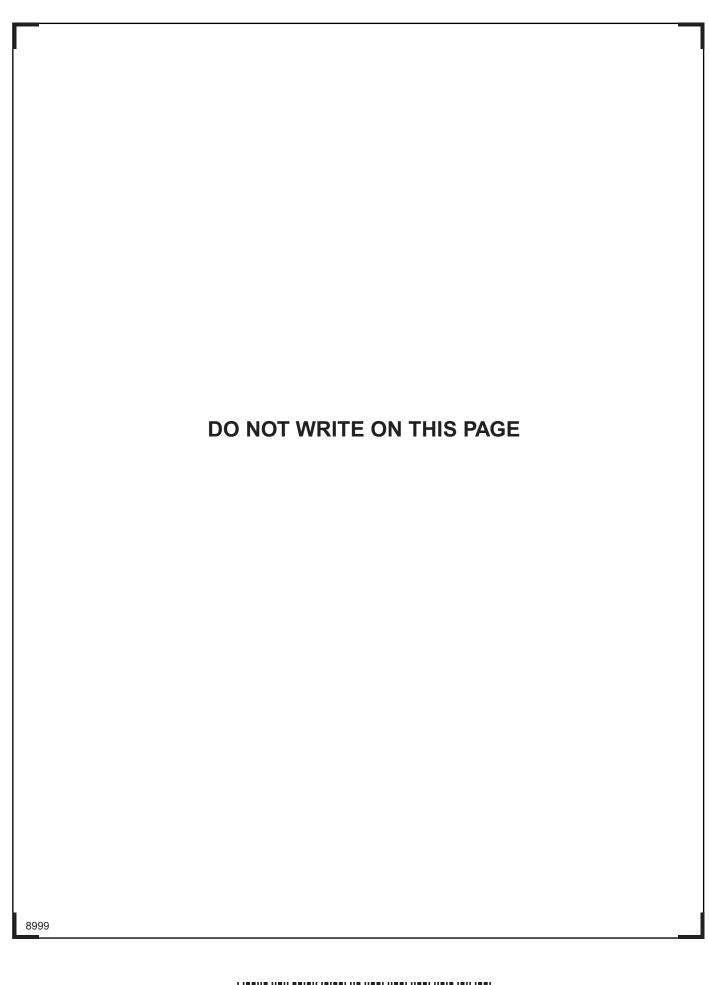
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For Examiner's use only		
Question Number	Marks	
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Total Marks

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