

Centre Number

Candidate Number

ADVANCED SUBSIDIARY (AS) General Certificate of Education January 2013

Information and Communication Technology

Assessment Unit AS 1 assessing

Module 1: Components of ICT

[AW111]

THURSDAY 17 JANUARY, MORNING



AW111

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 five questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 120 marks 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	Guests attending an ICT convention are asked to fill in claims forms for expenses.	Exami Marks	ner Only Remark
	Details from these forms are keyed into a database.		
	The database is then used to produce an invitation list for the next year's convention.	5	
	(a) Describe three reasons why the information in the invitation list miglinot be correct.	ht	
	1		
	2		
	3		
		[6]	

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Recently Leaving

Reserving
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_				
(b)	Explain what is meant by each of the following in this case.		Examin Marks	er Only Remark
	A direct data source			
	(i)			
		_ [2]		
	An indirect data source			
	(ii)			
		_ [3]		
(c)	Describe one benefit and one drawback of using an indirect data source.			
	Benefit			
	Drawback			
		_ [4]		
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Cus	tomerID	CustomerName	Telephone	Address	
34568		Black	42424224	Belfast	
(a) By referring t		to the table, explain	what is meant b	у	
I	Data				-
-					-
-					-
-					-
	nformation _				-
-					-
-				[4	- 1
				·	
b) l	Explain the p	ourpose of the Custo	merID.		
-					-
-					-
_				[2	-]
				-	

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Remarks

Research

Research

Research

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stoc	ck control system uses data verification and data validation.	Examine Marks	er Only Remark
Des	scribe two methods of data verification.		
1			
2			
	[+]		
The	CustomerID 34568 is keyed in as 43568 .		
(i)	Name and describe the type of data entry error which has occurred.		
	Name		
	Description		
	[2]		
/ii\	Explain how this arror will be detected if the CustomerID includes		
(11)	a modulus 11 check digit.		
	[4]		
	Des 1	Describe two methods of data verification. 1	Describe two methods of data verification. 1

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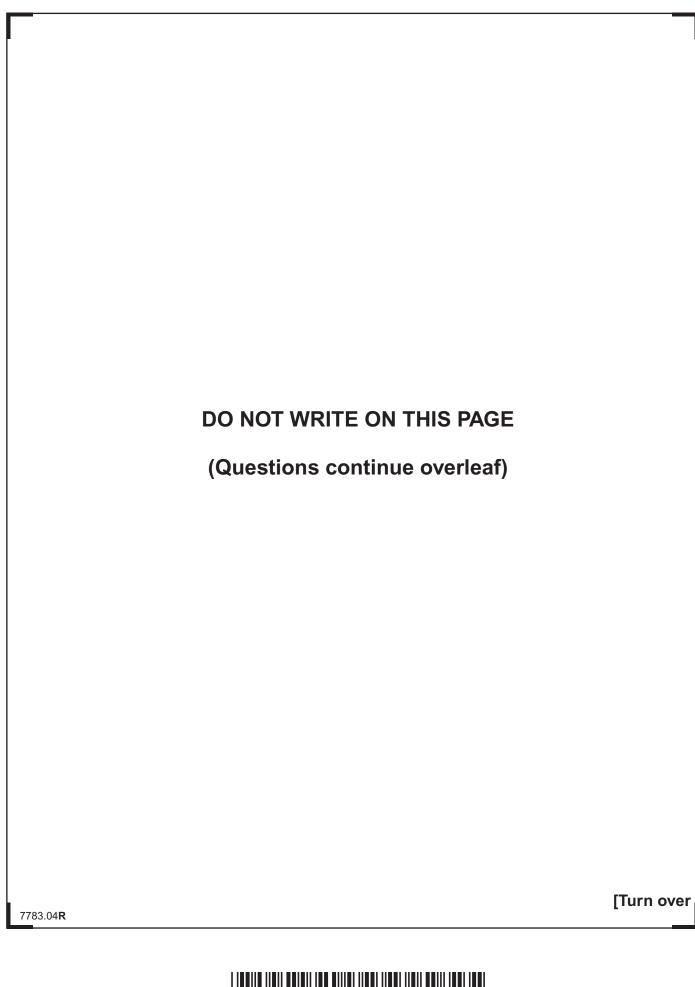


(e)	This system uses barcode readers and a laser printer.	Examin Marks	er Only Remark
	Describe the main features of		
	A barcode reader		
	A laser printer		
	[6]		
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Rewards





Reading I



3	(a)	Describe the purpose of each of the following CPU components.	Examin Marks	er Only Remark
		The arithmetic and logic unit		
		The control unit		
		The control unit		
		Cache memory		
		[6]		
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Remarks

Research

Research

Research

Research

Learning



A university's network has the following topology:	Examiner (Only emark
© D Fallis, CCEA		
(b) Name this topology and describe its main features.		
Name		
Description		
	[4]	
(c) The university is working with universities from around the ICT project.		
(c) The university is working with universities from around the	world on an	
(c) The university is working with universities from around the ICT project.	world on an ress.	
(c) The university is working with universities from around the ICT project.A video conference is planned to review the project's prog	e world on an aress.	
 (c) The university is working with universities from around the ICT project. A video conference is planned to review the project's prog (i) Explain four benefits of using a video conference for t 1. 	e world on an aress.	
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(c) The university is working with universities from around the ICT project. A video conference is planned to review the project's prog (i) Explain four benefits of using a video conference for t 1	e world on an aress.	

Reading I

(ii)	Describe how e-mail could be used to inform lecturers about the video conference.	Examiner Only Marks Remark
	[6]	
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	(d)	The university is a member of the International Telecommunication Union (ITU).	Examine Marks	r Only Remark
		Explain the purpose of the ITU.		
		[4]		
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Reading I



		ompa ntry.	any sells health products at a number of shops throughout the	Examiner (Only emark
	(a)		ICT consultant recommends that the company should develop a site.		
		(i)	Describe two benefits to the company of using the website to sell its products.		
			1		
			2		
			[4]		
		(ii)	Explain how a customer could use the website to obtain details about a particular health product.		
			[4]		
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	(iii)	Describe the main features of HTML.		Examin Marks	er Only Remark
(b) ⁻	The	company currently uses batch processing to process orders.	_ [+]		
((i)	Describe the main features of batch processing.			
			_ [4]		
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Reading I



_	(ii)	Describe how real-time processing could be used to process orders on the website.		Examine Marks	r Only Remark
			_		
			_		
			_		
			_		
(c)	The	e website will use TCP/IP and https.			
(0)		scribe the main features of			
	TCI	P/IP	_		
			_		
			_		
			_		
	http	OS	_		
			_		
			_		
			[6]		
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Remarks



5	An	organisation requires a new information system.	Examiner Only Marks Remark	
	(a)	A feasibility study is carried out.		
		Explain what is meant by		
		Legal feasibility		
		Social feasibility		
		[4]		
	(b)	Name and describe two different methods of fact finding.		
	(5)			
		Name Description		
		-		
		Name		
		Description		
		Description		
		[6]		
		[o]		
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(c) Cu	stom-built software can be developed using prototyping.	Examiner Marks R
(i)	Describe two disadvantages of custom-built software over off-the-shelf software.	
	1	
	2	
	[4]	
(ii)	Explain the main difference between evolutionary prototyping and throw-away prototyping.	
	[4]	

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(d)	Describe the role of the programmer during software development.	Examiner Only Marks Remark
	[3]	
(e)	The information system was developed using open source software.	
	Explain what is meant by open source software.	
	[3]	
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	(f)	The company has produced a disaster recovery plan.		Examin Marks	er Only Remark
		Describe the main features of a disaster recovery plan.			
			[4]		
	•	THIS IS THE END OF THE QUESTION PAPER			
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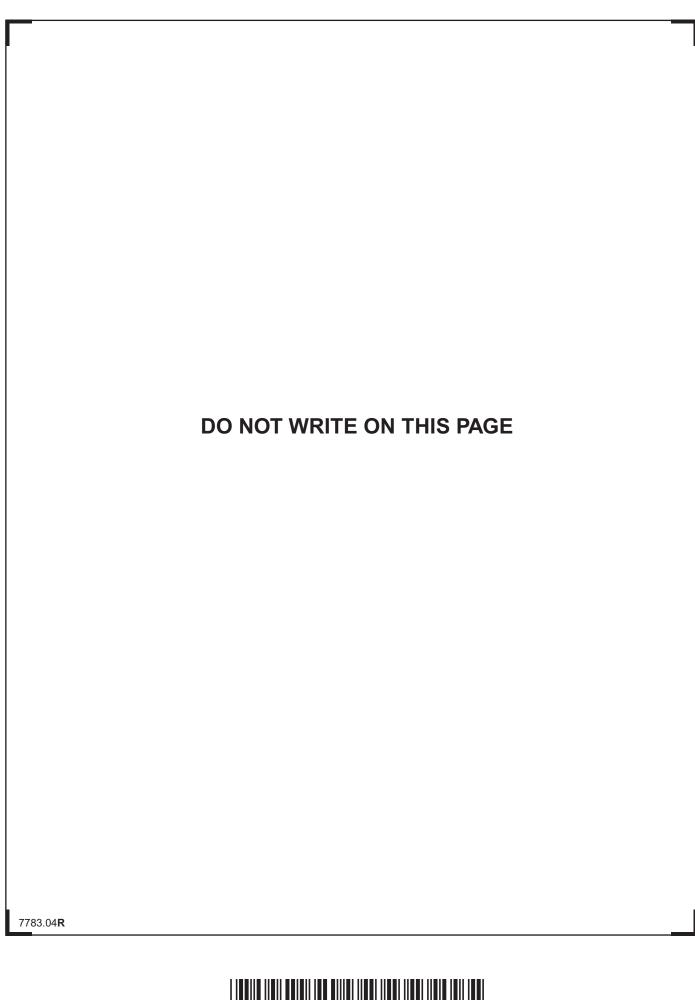
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Question Number	Marks	
1		
2		
3		
4		
5		
QWC		

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Total Marks

Examiner Number

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