

	Cer	Centre Numbe			

ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2014

# Information and Communication Technology

Assessment Unit AS 1 assessing Module 1: Components of ICT



**MONDAY 9 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 six** 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.

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	lany supermarkets use loyalty cards to reward regular customers with pecial offers.	Examiner Only  Marks Remark
(	Customers can apply for a loyalty card by completing an application form.	
1	Details from these forms are keyed into a database.	
(	<ul> <li>By referring to the application form discussed above, explain what is meant by</li> </ul>	5
	A direct data source	
		_
		_
	An indirect data source	_
		_
		_
	[4	 4]
(	b) Describe one benefit and one drawback of using a direct data source	
	Benefit	-
		_
		_
	Drawback	_
		_
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	Identify <b>two</b> methods of data verification.			Marks	
	1				
	2		[2]		
d)	Three fields on the application form are shown below.				
	Customer number 12345 Town Sometown Post code BB2 8ZZ				
	Choose the most suitable field for each of the following val checks. Explain each choice:	idation			
	Type check				
	Field				
	Explanation				
	Check digit				
	Field				
	Explanation				
	Format check				
	Field				
	Explanation			Total Q	
			[6]	iolai Q	u
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		dents have been asked to research the history of their school as part of CSE project.	Examiner Only  Marks Remark
	(a)	The students use the Internet to obtain information for the project.	
		Describe the main features of a typical Internet browser.	
		[4]	
	The	students obtain a hard copy of a newspaper article about the school.	
	(b)	Explain how the text of the article could be input to the computer using OCR software.	
		[4]	
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(c)		e newspaper contains an old photograph of the school. The stograph has been converted to a digital format.	Examir Marks	ner Only Remark
	(i)	Explain how computer software could be used to enhance the photograph.		
		[4]		
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(ii)	Describe the main features of the following file formats for storing images.	Examiner Only  Marks Remark
	JPEG	
	Bitmap	
	[6]	
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3	The	internal memory of a computer includes RAM and cache memory.	Examine Marks	er Only Remark
	(a)	Explain the purpose of each of the following.	Walks	Remark
		RAM		
		Cache memory		
		[6]		
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(D)	A co	omputer contains a hard disk.	Examine Marks
	Ехр	lain how data is written to a hard disk and read from a hard disk.	
		[5]	
(c)			
(c)		omputer requires an operating system and application software.	
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(ii)	Explain what is meant by application software.		Examir Marks	er Only Rema
		[0]		
(iii)	Describe <b>two</b> drawbacks of using open source software.  1.			
	1.			
	2			
		[4]		
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4	A co	ompany uses a local area network (LAN).	Examin	er Only
		Describe the main features of a star network.	Marks	Remark
	(4)			
		[4]		
	(b)	Describe the impact of cable failure on		
		A star network		
		A bus network		
		[4]		

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(c)	Describe the purpose of each of the following network resources.	Examiner Only  Marks Remark
	An IP address	
	A router	
	Proxy server	
	[6]	
(d)	The company uses an intranet.	
	Explain what is meant by an intranet.	
	[3]	Total Question 4
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5	An	organisation requires new software.		ner Only
	(a)	Describe <b>two</b> benefits of custom built software.	Marks	Remark
		1	-	
			-	
			-	
			-	
		2	-	
			-	
			-	
		[4]		
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(b)		e new software is developed in stages by a number of IT fessionals.	Examin Marks	er Only Remark	
	(i)	Explain what happens during each of the following stages:			
		User requirements stage			
		Implementation stage			
		[6]			
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(ii)	Describe the main responsibilities of each of the following during software development.	Examiner Only  Marks Remark
	The project manager	
	The end user	
	[6]	
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(c)	Tec	hnical documentation is produced for the new software.	Examin Marks	er Only Remark
	(i)	Identify <b>three</b> of the main components of technical documentation.		
		1		
		2		
		3		
		[3]		
	(ii)	Name and describe another type of documentation which will be produced for the new software.		
		Name		
		Description		
		[5]		
			Total Qu	estion 5
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6 Security is an important consideration for companies which sell their products over the Internet.	rks Remark
(a) Explain how each of the following can increase security over the Internet.	
https	
Paypal	
[8]	
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(b)	Explain how each of the following computer viruses can affect a computer system.	Examin Marks	er Only Remark
	A logic bomb		
	A macro virus		
	[6]		
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(c) Describe the main features of a typical disaster recovery plan	· 	Examiner (
	[4]	
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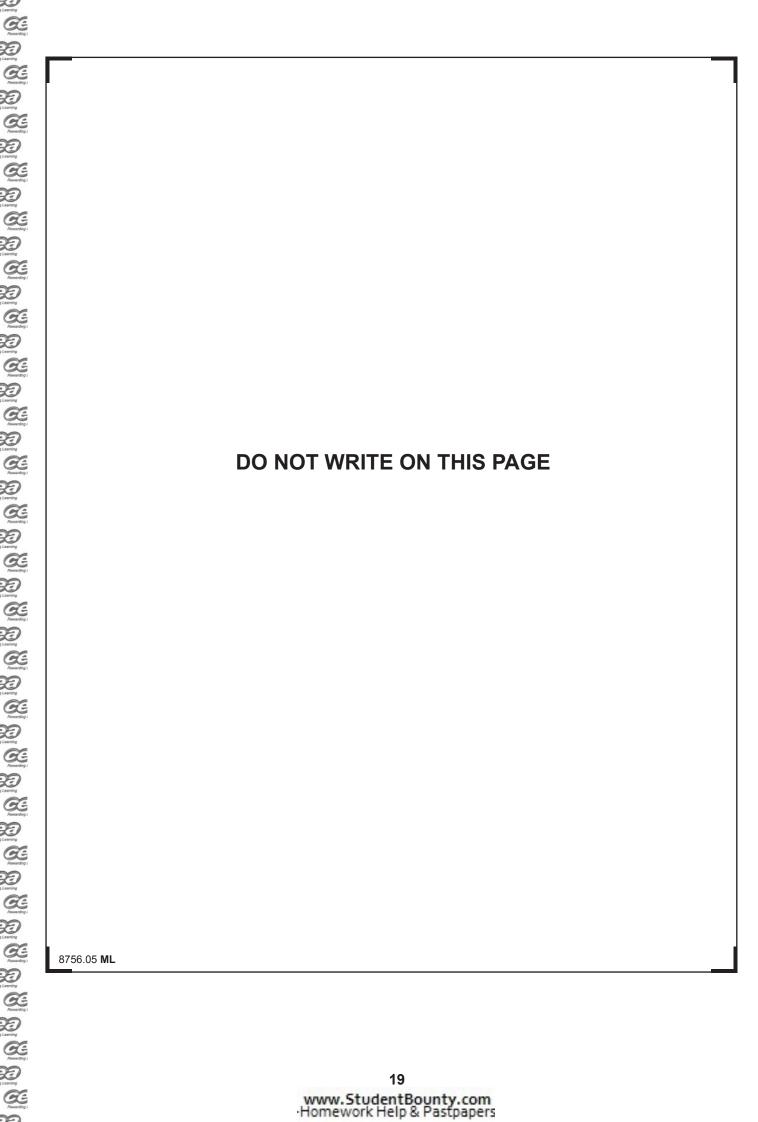
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For Examiner's use only		
Question Number	Marks	
1		
2		
3		
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5		
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Total Marks

**Examiner Number** 

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