



Се	ntre Number
71	
Cano	didate Number

ADVANCED SUBSIDIARY (AS)
General Certificate of Education
January 2009

Information and Communication Technology

Assessment Unit AS 1

assessing

Module 1: Components of ICT

[AW111]

MONDAY 12 JANUARY, AFTERNOON



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. 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.

	miner's only
Question Number	Marks
1	
2	
3	
4	
5	
QWC	

Total	
Marks	

1 Each component used in the assembly of an airplane has a unique 4-digit product number.

Examin	er Only
Marks	Remark

Example

Product number	Product description
6548	Right-side engine
7536	Left-side engine
1538	Right-side wing

(a) By referring to the **shaded cell**, explain what is meant by each of the following.

Data	
Information	
	[4]

(D)	1116	e product number includes a modulus-11 check digit.		Marks	er Only Remarl
	(i)	Explain how a check digit is used to detect errors.			
			_		
			[4]		
	(ii)	Show how the check digit in the product number 6548 is			
		calculated.			
			 [4]		
(c)		e production manager receives daily progress reports on aircraft embly. These reports are always up to date.			
		ntify three other factors which could affect the quality of the rmation in the reports.			
	1				
	2				
	3		[3]		

coll	eague.	Marks Remai
(i)	Describe two file formats that could be used in this case .	
	1	_
		_
		_
		_
	2	
	2	_
		_
		_
		_
		[6]
(ii)	Briefly explain the purpose of the ISO.	
		_
		_
		_
		[3]

Cache memory	escribe the purpose of:	Mar
Cache memory	AM	
Cache memory		
Cache memory		
		[3]
	ache memory	
		[3]

(b)	The driv	e PC can be purchased with either a DVD drive or a Blu-ray disc ve.	Examiner Only Marks Remark
	(i)	Explain how data is written to and read from a DVD.	
		[4]	
	(ii)	Describe one advantage and one disadvantage of using a Blu-ray disc instead of a DVD for watching a movie on the PC.	
		Advantage	
		Disadvantage	
		[4]	

State two functions of the operating system.	
,	
1	
2	
[2]	
i) Describe the main features of a web authoring software package.	
[4]	
ii) One of the packages installed on the PC is open source software.	
Describe one advantage and one disadvantage of using open source software.	
Advantage	
	2

viar	ny small businesses use a LAN.	Exan Marks
	Identify three advantages of replacing standalone computers wit network.	th a
	1	
	2	
	3	
		[3]
b)	Describe the main features of a bus/star composite network.	
,	·	
		[6]

(c)		company with offices throughout the country uses the Internet for mmunication.	Examiner Only Marks Remark
	(i)	Explain the purpose of an IP address.	
		[4	ij
	(ii)	Describe two ways in which the company could use the Internet for communication between its office managers.	
		1	
		2	
		[6	[6]

cribe the main feature	es of Bluetooth technology.		Examiner (
		 [4]	

(d)

Supermarkets make extensive use of ICT.		Examiner On
(a) Describe two benefits to a supermarket of using a barcode syst	em.	Walks Rell
1		
2		
	[4]	

b) 3	Sor	ne supermarkets plan to implement RFID technology.		Examiner (
	(i)	Describe the main features of RFID technology.		
			<u> </u>	
	(ii)	Describe two advantages of RFID technology over the use of barcodes.		
		1		
		2		
			₋ [4]	

(c)	Many supermarkets encourage their customers to use loyalty cards	S. Examiner Only
	Describe four measures a supermarket must take to ensure its loyal card scheme complies with Data Protection Legislation.	Marks Remar
	1	_
	2	
		_
	3	
	4	
		[8]
(d)	Because of its reliance on ICT, a supermarket chain devises a disaster recovery plan.	
	Describe the main features of a typical disaster recovery plan.	
		_
		_
		_

Αn	ew information system is being developed.		Examin Marks	er Only Remark
(a)	Describe two main costs involved in producing information.		Widiks	Remark
(,				
	1	_		
		_		
		_		
	2	_		
		_		
		_		
		_		
		[4]		

The team developing the system consists of a project manager and a team of programmers.	Examin Marks	er Only Remark
Describe the main roles of		
The project manager		
A programmer		
[6]		

(b)

(c)	The	new system will undergo testing.		Examin	er Only
		scribe the main features of each of the following.		Marks	Remark
	App	olication testing			
	Acc	eptance testing			
	_				
			[6]		
(d)		direct changeover method will be used for the new system.			
	(i)	Describe the main features of direct changeover.			
			_ [2]		
	(ii)	Describe one other changeover method.			
			_ [2]		
				QV	NC

THIS IS THE END OF THE QUESTION PAPER