

ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2012

## Centre Number 71 Candidate Number

## Information and Communication Technology

Assessment Unit AS 1

assessing

Module 1: Components of ICT [AW111]

**TUESDAY 29 MAY, 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. 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.

For Examiner's use only				
Question Number	Marks			
1				
2				
3				
4				
5				
6				
QWC				

Total	
Marks	
Marks	



Bar	nks make extensive use of ICT.	Examiner Only  Marks Remark
(a)	Identify <b>two</b> examples of input and <b>two</b> examples of output at a typ ATM.	
	Input	
	1	
	2	
	Output	
	1	
	2	_ [4]
(b)	Describe the main features of each of the following technologies.	
	MICR	
	Smart card	
		_ [6]

(c)	Bar	nks provide on-line facilities for their customers.	Exami	ner Only
	Ide	ntify <b>two</b> benefits to the customer of using on-line banking.	Marks	Remark
	1.		_	
(d)	Bat	tch processing is used to process cheques.		
	(i)	Describe the main features of batch processing.		
			_	
			_	
			[4]	
	(ii)	Describe the main features of real-time processing.		
			_	
			_	
			_	
			_	
			_	
			[4]	

Stu	dents have access to a university's intranet.		Examin Marks	er Only Remark
(a)	Describe the main features of each of the following.		Walks	Kemark
	WAN			
	LAN			
		[4]		
(b)	Describe the main difference between an intranet and the Internet.			
		[2]		
		[4]		
(c)	Identify <b>two</b> uses of the intranet <b>in this case</b> .			
	1			
	2			

The university is taking part in a project with other universities on the use Examiner Only of renewable energy. Marks Remark (d) Apart from email, explain how students taking part in the project could use the Internet to Search for information Disseminate information \_\_\_\_\_ [8]

(0)	The organisers of the project wish to arrange a videoconference.	Examin	or Only
(0)	Identify <b>four</b> hardware components and <b>two</b> software components required specifically for videoconferencing.	Marks	Remark
	Hardware		
	1		
	2		
	3		
	4		
	Software		
	1		
	2		

	mputer networks must be protected from viruses.	Marks	ner Only Remark
a)	Describe the main features of		
	A worm		
	[3]		
	A logic bomb		
	[3]		

3

	A macro virus		Examin Marks	er Only Remar
(b)	Describe <b>three</b> methods used to keep information secure on a network.			
	1			
	2.			
	3			
		_ [9]		

	orm.			1
Name				
ramo			_	
email address				
Delivery Address				
Addiooo				
Product Code				
e.g. 12345				
Quantity				
Range Format				
Check Digit				[4]

ıne	e customer receives an email confirming the order.		Examine Marks	er Only Remark
	e customer then receives a letter from an insurance company offering vide insurance for the product.	j to	Walks	Remark
(b)	In this case, explain what is meant by			
	A direct data source			
	An indirect data source			
		[4]		
(c)	Explain the implications of Data Protection legislation when data is used in this way.			
		_		
		[4]		

5			business requires a new information system, it is important that requirements are identified.	t	Examino Marks	er Only Remark
	(a)	Nar	me and describe <b>two</b> methods of fact finding.			
		Nar	me			
		Des	scription			
		Nar	me			
		Des	scription			
				[6]		
	(b)	The	e feasibility of the new system must be investigated.			
		(i)	Explain what is meant by technical feasibility.			
				[2]		
		(ii)	Explain what is meant by social feasibility.			
				[2]		

Data Flow Diagrams (DFDs) are used during the design of a new system.		Examiner Only  Marks Remark
Identify three of the main components of a DFD.		
1		
2		
3	_ [3]	
The changeover method to be used for the new system must be decided.		
Name and describe <b>two</b> changeover methods.		
Name		
Description		
Name		
Description		
	_ [6]	
	system.  Identify <b>three</b> of the main components of a DFD.  1	system.  Identify <b>three</b> of the main components of a DFD.  1

nformation system.		
	[4]	

details of all doctors who specialise in surgery.		
	[6]	
	[6]	
Virtual reality is used by the hospital to train doctors in new surgical		
Virtual reality is used by the hospital to train doctors in new surgical techniques.		
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	(11)	Describe two benefits of using virtual reality in this case.		Examiner Marks	r Only Remark
		1			
		2			
			F 43		
			_ [4]		
(c)	Em	ployers must take steps to minimise risks for workers who use	ICT.		
	Des	scribe the main features of Health and Safety legislation relating	n to		
		use of ICT.	g 10		
			[6]		
			_ [6]		
	ТНІ	S IS THE END OF THE QUESTION PAPER		Quality Writte	en
				Communi	cation

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