

ADVANCED SUBSIDIARY (AS)
General Certificate of Education
January 2012

# 71 Candidate Number

## Information and Communication Technology

Assessment Unit AS 1

assessing

Module 1: Components of ICT

[AW111]

**MONDAY 16 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 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 Exa	_
Question Number	Marks
1	
2	
3	
4	
5	
6	
QWC	

Total	
Iotai	
N/II	
Marks	
marito	



	e manager of a book shop uses a computer to update the sales abase.	Exami Marks	Remark
(a)	Describe how the manager could create a report showing the titles of all non-fiction books.	of	
		_	
		_	
		_	
		_	
		_	
		_	
		_	
		_	
		_	
		[6]	

b)	Describe how each of the following types of memory is used <b>in this</b> case.		caminer On
	RAM	-	
		-	
		-	
		-	
		-	
	Hard disk	_	
		-	
		-	
		-	
		-	
	[6	5]	
:)	The manager wishes to backup the database.		
	Comment on the suitability of the following for the backup.		
	CD-RW	-	
		-	
		-	
	The computer's internal hard disk	-	
		_	
		_	
		-	
	[4	4]	

(d)	The	e manager decides to use open source software in order to rets.	educe	Examiner Only  Marks Remar
	(i)	Describe one other advantage of using open source softwa	re.	
	(ii)	Describe one drawback of using open source software.	[2]	
			[2]	

#### **BLANK PAGE**

(Questions continue overleaf)

(a)	Des	cribe the impact of a cable failure on		Examin	er Only
	A s	ar network		Marks	Remark
	A b	us network			
			[4]		
(b)	TCF	P/IP is a protocol used when data is transmitted over the Interne	et.		
	(i)	Describe the purpose of the TCP layer.			
			_		
			 [3]		
			[၁]		
	(ii)	Describe the purpose of the IP layer.			
			 [3]		
			r.~1		

Apart from e-mail, outling the Internet.	accorde new min	ormation our i	oc disserrinate	Z	Examine Marks
				[4]	

3 Consider the following details about a number of stock items.

Product Code	Name	Unit Price (£)
24163	Mouse	15.00
32549	USB Cable	12.00
46531	CD ROM	1.00
21458	Mouse Mat	3.50

(a)	By ref	ferring to the shaded cell, explain what is meant by	
	Data		-
			_
			_
		nation	-
			_
			_
		[4	4
(b)	The F	Product Code includes a modulus-11 check digit.	
		explain how a check digit can be used to detect a transposition rror.	
	_		_
	-		_
	-		_
	-		-
	-		-
	-		-
	_	[4	- 4

	Show that <b>13217</b> is an invalid Product Code.	Marks	ne
		_	
		_	
		_	
		-	
		_	
		_	
		_	
		[4]	
The	quality of information can be influenced by how up-to-date it is.		
	eferring to a typical invoice, describe <b>two</b> other factors which ca	n	
influe	ence the quality of information.		
1		_	
1 _		_	
1 _		_	
1		_	
1 _		_	
		- - -	
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		- - - - - - - (4]	
		- - - - - - - (4]	
		- - - - - - - (4]	
		- - - - - - (4]	

(d) A spreadsheet is used to record annual sales. Part of the spreadsheet is shown below.

	Α	В	С	D	E	F	G	Н
1								
2	Sales Report				No. of p	roducts	4	
3								
4	Product Code	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total	Average	Best
5	24163	3465	3612	4512	6532	18121	4530	6532
6	32549	1254	3425	1523	2341	8 5 4 3	2136	3425
7	46531	4528	5467	4398	5539	19932	4983	5539
8	21458	2310	4218	2721	3471	12720	3180	4218
9								
10								

se micro-chips use RFID.	Marks	F
Describe the main features of RFID technology.		
	[4]	
Describe <b>two</b> benefits of using RFID <b>in this case</b> .		
1		
2		
	[4]	

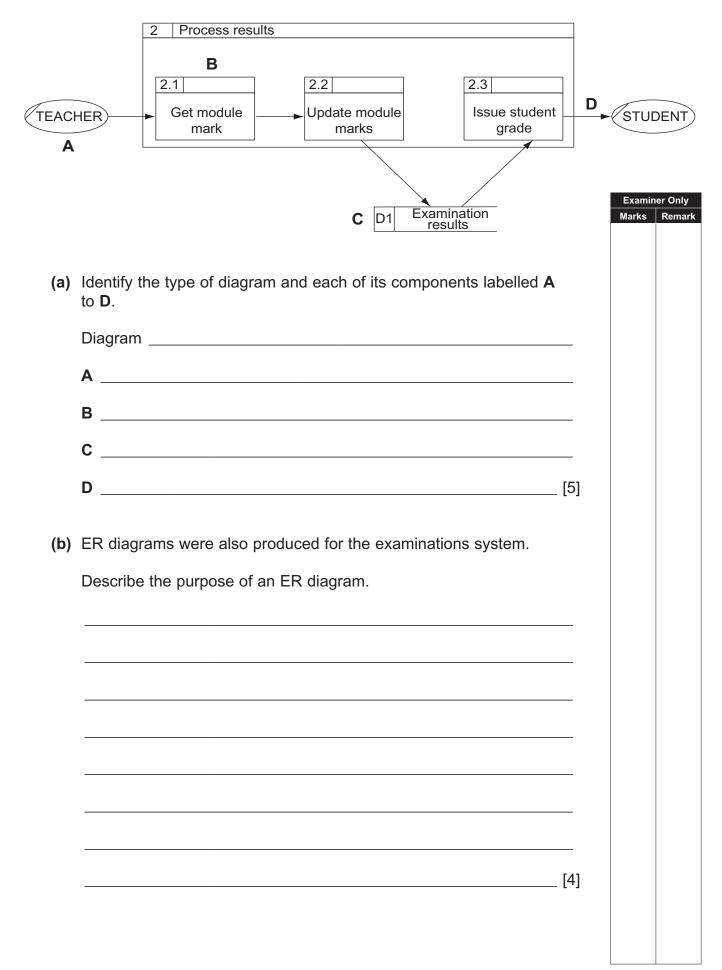
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. <u> </u>			_
			_
			-
		[	8]

	B 11 11 11 11 11 11 11 11 11 11 11 11 11		
(i)	Describe the main features of PayPal.		
		[4]	
(ii)	Describe the main features of HTML.		
` ,			
		[4]	
		[4]	
		[4]	
		[4]	
		[4]	
		[4]	
		[4]	

ors and students use a university network.	Marks
Explain how a student could email a hand-written draft of a spreadsheet to a tutor.	
[4]	
Explain how a tutor could send an urgent email to a particular group of students.	
[4]	
	Explain how a tutor could send an urgent email to a particular group of students.

(i)	Describe the main features of	
	A worm virus	_
		_
		_
	A logic bomb	_
		_ [6]
(ii)	Identify <b>four</b> measures the network manager could take to minimise the risk from computer viruses.	
	1	
	2	_
	3	
		_
	4	
		_ [4]
	(ii)	A logic bomb  (ii) Identify four measures the network manager could take to minimise the risk from computer viruses.

The following diagram was produced during the development of an examinations system.



nev	•		
(i)	Explain what is meant by parallel running.		
		_ [2]	
(ii)	Identify one benefit and one drawback of direct changeover.		
(,	Benefit		
	Drawback		
	Drawback		
		[0]	
	scribe how a new information system might be evaluated in ten		
	scribe how a new information system might be evaluated in ter		
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of 6	scribe how a new information system might be evaluated in ter	ms	

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