

Rewarding Learning

ADVANCED General Certificate of Education January 2013

Centre Number						
	C	andid	ate Nu	umber		

Information and Communication Technology

Assessment Unit A2 1 assessing

Module 3: Information

Systems

[AW211]

MONDAY 21 JANUARY, MORNING



AW211

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 six** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 120 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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1	A partic	ular CAD system provides both a GUI and a command line e.	Examiner Only Marks Remark
	(a) (i)	Identify four main features of a GUI. 1	
		2	
		3	
		4[4]	
	(ii)	Identify four main features of a command line interface. 1	
		2	
		3	
		4	
		[4]	
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(b)	Describe the main benefits of using CAD.	Examin Marks	er Only Remark
	[6]		
(0)	The CAD system includes a touch screen.		
(6)	Describe the main features of a touch screen.		
	[4]		
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The	software includes an electronic user guide.	Examiner O Marks Rer
(d)	Describe two main benefits of providing a user guide in electronic form.	inarito ito:
	1	
	2	
	[4]	
(0)	Hears of the system are trained using an on line source	
(e)	Users of the system are trained using an on-line course.	
	Describe the benefits of using an on-line course for training.	
	[4]	

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2	Cus RAI	stom-built software can be developed using the waterfall model or by D.	Examin Marks	er Only Remark	
	(a)	Describe the main features of			
		The waterfall model			
		RAD			
		[8]			
			FT		
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(b)	Describe the role of the end user in the waterfall model.	Examin Marks	er Only Remark
		-	
		-	
		-	
	[3]	- 	
(c)	Software can also be obtained off the shelf.		
	Explain why custom-built software might be preferred to off the shelf software.		
		-	
		-	
	[2]		
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(d)	CASE tools are used during software development.	Examin Marks	er Only Remark
	Describe the main features of each of the following CASE tools.		
	A graphics tool	_	
		_	
		_	
		_	
		_	
	A code generator		
		61	
	[6]	
		[Tur	n over
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3	Org	anisations must ensure that employees comply with ICT legislation.	Examine Marks	er Only Remark
	(a)	Describe the main implications of each of the following for employees.		
		The Copyright, Designs and Patents Act		
		The Computer Misuse Act		
		[8]		
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(b)	Describe the main contents of a typical acceptable use policy relating to ICT.	Examiner On Marks Rem
	[4]	
(c)	A software company encourages its employees to join the British Computer Society (BCS).	
	Describe two reasons why an ICT professional should join the BCS.	
	1.	
	2	
	[4]	
		IT.um a
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4	A u	niveı	rsity has a number of campuses, each with its own library.	Examine Marks	er Only Remark
	(a)		e libraries use different sources of information when ordering books an ICT course.		
		(i)	Identify and justify an internal source of information the libraries could use.		
			Source		
			Justification [2]		
		(ii)	Identify and justify an external source of information the libraries could use.		
			Source		
			Justification		
			[2]		
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The	libraries use a database management system (DBMS).	Examin Marks	er Only Remarl
(b)	Identify four responsibilities of the database administrator.		
	1		
	2		
	3		
	4		
	[4]		
<i>(</i>)			
	Explain what is meant by		
	A flat file		
	Data inconsistency		
	Data in dan an dan as		
	Data independence		
	[6]		
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Examiner Only (d) The following ER model was produced during the design of the library Marks Remark database. AUTHOR воок LIBRARY LOAN STUDENT In the space below, modify this ER model so that it can be implemented in a relational database. [6]

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5	(a)	Sta	ndards are used throughout ICT.	Examin Marks	er Only Remark
		(i)	Describe the main features of JPEG.		
			[3]		
		(ii)	Describe the main features of the OSI model.		
			[6]		
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(b)	Clie	ent server and peer-to-peer are two types of network.		Examine Marks	er Only Remark
	(i)	Describe the main features of a client server network.			
			[3]		
	(ii)	Describe one benefit and one drawback of a peer-to-peer network.			
		Benefit			
		Drawback			
		Diawback			
			[4]		
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	(c)	011	1101010 includes a parity bit.		
		An error occurs when this byte is transmitted and it is received as 01101110 .		Marks	Remark
		(i)	Describe how this error will be detected.		
			[2]		
		(ii)	Explain the consequences if the byte is received as 00001010 .		
			[2]		
	(d)		manager of a network suspects that a database is being modified nout authorisation.		
			scribe how the network manager could use software to identify se responsible.		
			[4]		
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6	Robots are to be used extensively on a new car assembly line.	Examine Marks	r Only Remark
	Write a report evaluating the impact on quality, and the financial implications of this use of ICT.		
		Quality of	written
	[10]	commun	cation
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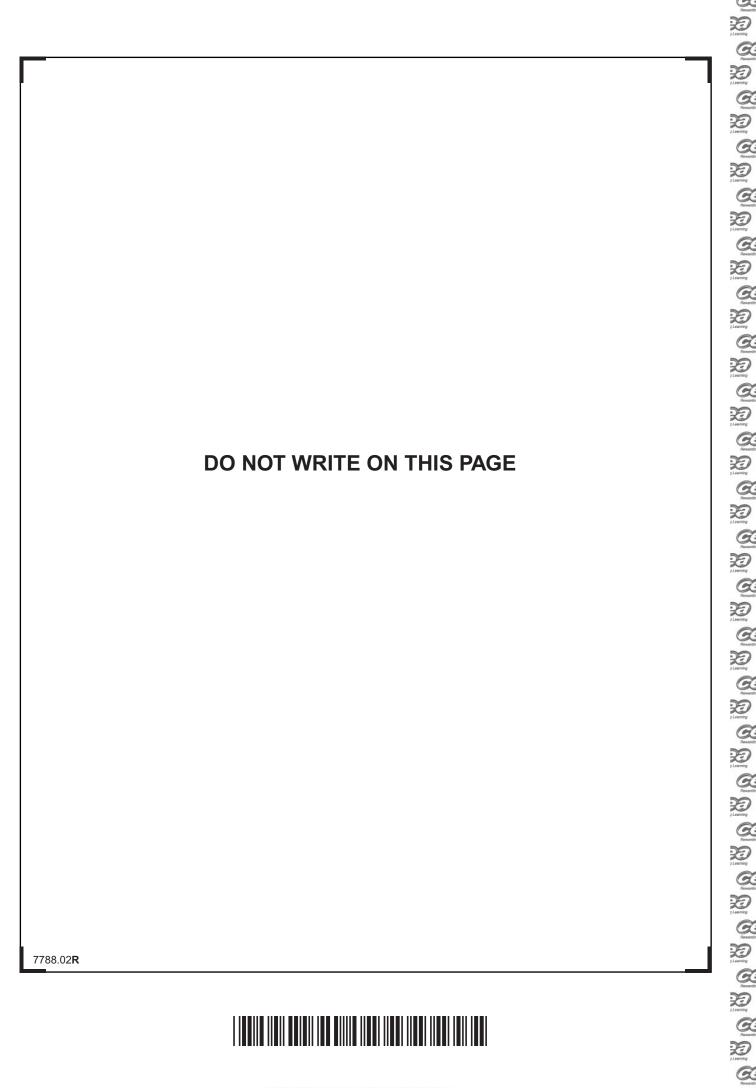
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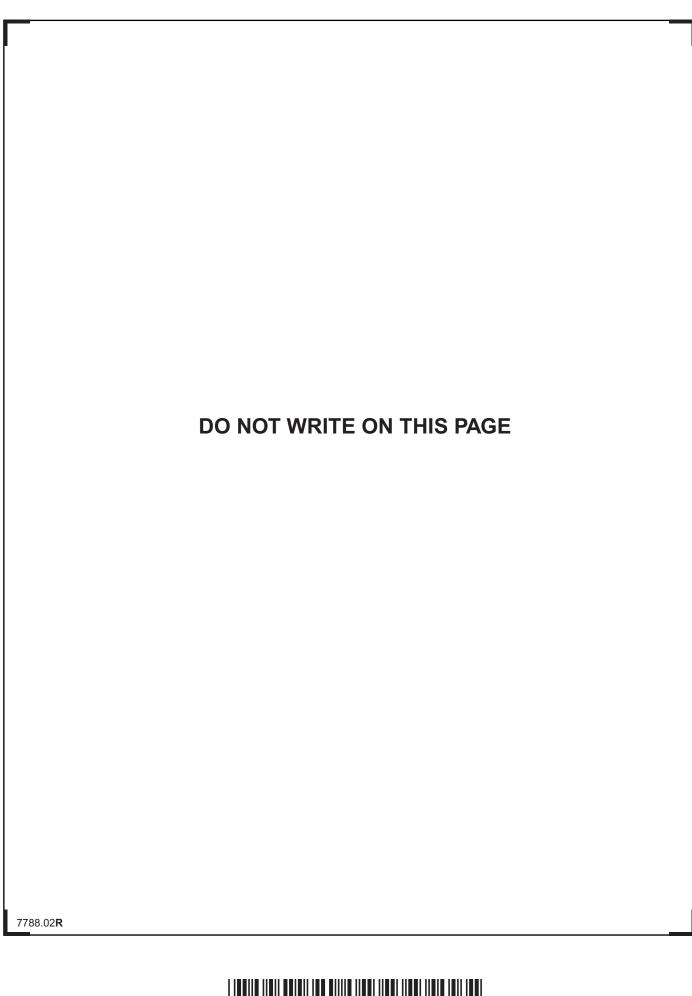


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	1		
	2		
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Total Marks

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