Surname	Centre Number	Candidate Number
Other Names		0



New GCSE

4331/01

INFORMATION AND COMMUNICATION TECHNOLOGY

UNIT 1: UNDERSTANDING ICT

(SHORT COURSE) INFORMATION AND COMMUNICATION TECHNOLOGY

UNIT 1: UNDERSTANDING ICT

A.M. FRIDAY, 24 June 2011

 $1\frac{1}{2}$ hours

Examiner's Use Only		
Total Mark		

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen. Do not use pencil or gel pen. Do not use correction fluid.

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer all questions.

Write your answers in the spaces provided in this booklet.

If you run out of space in the question-and-answer booklet you may use continuation sheets. Number the questions clearly and put your sheets in this question-and-answer booklet.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

Quality of written communication will be assessed in question 12.



Answer all questions in the spaces provided.

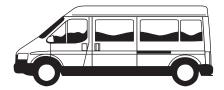
1. A school is designing a poster to advertise a sponsored walk.

The draft poster is shown below.

SPONSORED WALK FOR SCHOOL MINI BUS Starts at 10.00 a.m. on Saturday 11th June 2011

The draft is improved and the new poster is shown below.

SPONSORED WALK FOR SCHOOL MINI BUS



Starts at 10.00 a.m. on Saturday 11th June 2011

(a) From the list below, tick (1) four features of Desk Top Publishing (DTP) software used on this new poster.

Feature	Tick (✓)
Video	1
Clip art	2
Border art	3
Italic	4
Centre text	5
Underline	6
Bullet points	7
Mailmerge	8

[4]



<i>(b)</i>	(i) Tick (✓) the feature of DTP software that could be used to find a similar 1 for a word.					eaning
		Feature	Ti	ick (✓) one box only		
		Thesaurus		1		
		Word count		2		
		Language		3		
	(ii)	Name the feature of DTI	P software that	at could be used to d	etect spelling erro	[1] ors.
						[1]
(c)	Oth orga	er than DTP state two tynising the sponsored walk.	pes of softv Give an exar	vare that could be uple of how each co	used by the schuld be used.	ool in
		Type of software 1				
		Example of use				
		Type of software 2				
		Example of use				
						[4]
Tick	(√) th	ne correct box to show which	th of these ite	ms is data, informati	ion or knowledge.	
		Items	Data	Information —	Knowledge	
3	4, 35		1	4	7	
3	4 seco	nds, 35 seconds	2	5	8	
ra		mpetitor who swam the 34 seconds is the	3	6	9	
						[3]

0 3

2.

Turn over.

3. The mobile phones shown below have certain features, some of which are shown in the tables.



Camera	10 megapixels
Music	MP3 Player
Connectivity	WiFi, Bluetooth
Memory card	Flash memory up to 4GB



Camera	5 megapixels
Music	MP3 Player
Connectivity	WiFi
Memory card	Flash memory up to 4GB

(a)	(i)	Give one advantage of the camera with 10 megapixels (phone A) over the camera with 5 megapixels (phone B) .	nera
			[1]
	(ii)	Give one disadvantage of the camera with 10 megapixels (phone A) over camera with 5 megapixels (phone B) .	the
(b)	State	e one feature of these phones which will allow access to the internet.	[1]
			 [11



(c)	Many mobile phones have geographical information systems (GIS) linked to s navigation systems as one of their features. Explain two benefits to the user of the mobile phone.	
	Benefit 1	
	Benefit 2	
		[2]
(d)	Briefly describe how the phone user can make use of <i>Bluetooth connectivity</i> .	
		[1]

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4. A teacher has created a spreadsheet to help him to arrange a trip for pupils. Part of the spreadsheet is shown below.

	A	В	С	D	Е	F	G
1	Number of Pupils	Cost of Bus	Entrance Fee	Insurance	Total Cost	Income	Profit/Loss
2	0	750	0	0	750	0	-750
3	5	750	200	50	1000	500	-500
4	10	750	400	100	1250	1000	-250
5	15	750	600	150	1500	1500	0
6	20	750	800	200	1750	2000	250
7	25	750	1000	250	2000	2500	500
8	30	750	1200	300	2250	3000	750
9	35	750	1400	350	2500	3500	1000
10	40	750	1600	400	2750	4000	1250
11	45	750	1800	450	3000	4500	1500

(a)	State the data in cell D3.	[1]
(b)	Give the least number of pupils who need to go on the trip to avoid making a loss.	
		[1]
(c)	Which of the following formulas could be used to give the Total Cost in cell E3?	
	A =B3+C3+D3 B =SUM(B3:D3) C =SUM(B3-D3) D =AVG(B3:D3)	[1]
(d)	Give a suitable formula for working out the <i>Profit/Loss</i> in cell G4.	
		[1]



(<i>e</i>)	Give two specific advantages	s of using a spreadsheet	to work out the Profit/Loss.
--------------	------------------------------	--------------------------	------------------------------

1.

2.

[2]



5. A local garage keeps details of all cars for sale in a computer database, part of which is shown below.

Registration number	Туре	Colour	Engine size (cc)	Fuel	Price £
AZ54FGG	SALOON	RED	2200	D	8000
BD04GGG	SALOON	GREY	3000	D	5600
CF56NMB	4X4	SILVER	4200	D	13995
AS07NBV	ESTATE	BLACK	1600	Р	23000
CS58FFG	4X4	SILVER	2500	D	35000
WQ02CVB	НАТСН	BLUE	1800	Р	2345
XC52FGH	ESTATE	GREEN	2000	Р	3425
VV09TYU	SALOON	RED	2300	Р	19899

V V (37110	SALOON	KED	2300	1	17077	╝
(a)	How many 1	records are show	n in this databa	ase?			[]
<i>(b)</i>	How many cars would be found by the following search?						
	Colour = "R	ED"					[]
(c)	The <i>Fuel</i> fie way.	eld contains the	Letter D or P. I	Describe one	benefit of en	tering data in	n th
							[1
(d)		wants to know it ne table below to					m th
	Fieldnan	ne			Search cr	iteria]
			=				
		<u>'</u>	AND	I			J
	Fieldnan	ne			Search cr	iteria]



[2]

6. Computers are used for weather forecasting.

(a)	One method of displaying weather information is in a graph.	Give two other different
	ways of displaying weather information on a computer.	

(b) Other than the variety of ways to display the data, give **two** advantages of computer based weather forecasting systems.

(i)	
-----	--

7. A library has an environmental monitoring system. Two different sensors are used to measure *temperature* and *humidity*.

If a sensor detects that the value measured is too high it sends a ${\bf 1}$ to the computer, otherwise it sends a ${\bf 0}$.

Complete the following table by describing the conditions in the library when the following data is received from the sensors.

Temperature	Humidity	Description of conditions in library
0	0	
1	0	
1	1	

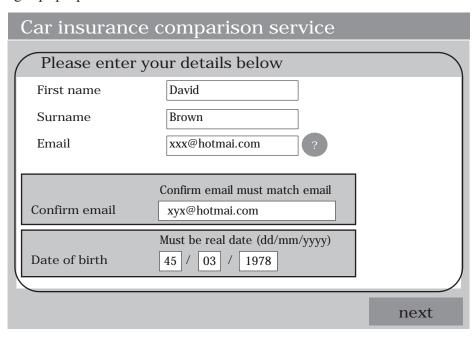
[3]



Onli	ne tuto	orials use ICT to help students to learn about a subject or topic.	
(a)	Lear	rning games are one feature of online tutorials.	
	Nan	ne two other features found in online tutorials.	
	(i)		
	(ii)		[2]
<i>(b)</i>	VLE	Es are used in schools and colleges.	
	(i)	What does VLE stand for?	
		V E	 [1]
	(ii)	One use of a VLE is to allow teachers to set homework. Describe two <i>other</i> was students or teachers can make use of a VLE.	ıys
			[2]

8.

9. David Brown uses an online car insurance site to obtain a quote. When entering his details two messages pop up as shown below.



(a) (i) Tick (\mathcal{I}) to show whether the following are examples of verification or validation.

Verification

Validation

			st match en	nail			3	
<i>N</i>	lust be	e a real dat	te			2	4	
								[2]
	(ii)	Describe field.	in detail t	he techniqu	e used to id	entify the e	rror in the <i>Dat</i>	e of birth
								[2]
(b)				ce quote by ne disadvant		email to ser	nd out quotes.	
	Adva	ntage						
	Disac	lvantage						
								[2]



Error message

. Mar	Mary is a supporter of the local theatre and wants to buy tickets online from home.				
(a)	Tick (\mathcal{I}) three of the items of data shown below which Mary would have to supply when buying tickets.				
	Item	Tick (✓)			
	NAME	1			
	HEIGHT	2			
	WEIGHT	3			
	DATE	4			
	GENDER	5			
	PAYMENT DETAILS	6			
			[3]		
(b)	Describe one advantage of using a advantage to Mary.	n online booking system to the theatre and	one		
	Advantage to the theatre				
	Advantage to Mary				
			[2]		



A family access the internet using a network. (a) Give one way the family could prevent unauthorised access to their network.						
(b)	Give one way the parents can protect their children from unsuitable sites.					
(c)	Give two reasons why the children should not share personal details with people the					
	meet on the internet.					
(d)	The family shop online.					
(<i>u</i>)	Give two advantages of shopping on line.					
(e)	The parents are worried about possible health hazards associated with using t computer for long periods of time. Describe these health hazards and how they could be reduced.					



[8]
Describe how <i>specialist devices</i> and <i>software</i> can be used to support people with disabilities. In your answer you should include:
• different learning devices
 different learning devices voice software gustomized desistants
 different learning devices voice software customised desktops.
 voice software
 voice software
 voice software
 voice software
 voice software
 voice software
 voice software
 voice software
 voice software
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 voice software
 voice software

Examiner only



12.



DO NOT WRITE ANY ANSWER ON THIS PAGE

