

Surname	Centre Number	Candidate Number
Other Names		0



GCSE

4331/01

INFORMATION AND COMMUNICATION TECHNOLOGY

**UNIT 1: Understanding ICT
(Short Course) Information and
Communication Technology**

UNIT 1: Understanding ICT

A.M. THURSDAY, 6 June 2013

1½ hours

Examiner only

Total Marks	
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4331
010001

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, use the continuation page at the back of the booklet, taking care to number the question(s) correctly.

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 **11**.



J U N 1 3 4 3 3 1 0 1 0 1

1. The first draft of a poster to advertise a meeting for the school's ski trip is shown below.

SKI TRIP MEETING
Parents and students welcome
Room D2
25th June 2013 at 7pm

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



- (a) Tick (✓) the correct boxes to show the **three** features of Desk Top Publishing (DTP) software used on this new poster. [3]

Features	Tick (✓)
Clip Art	<input type="checkbox"/>
Bullet points	<input type="checkbox"/>
Table	<input type="checkbox"/>
Centre text	<input type="checkbox"/>
Underline	<input type="checkbox"/>
Border Art	<input type="checkbox"/>
Italic Font	<input type="checkbox"/>



(b) Name the feature of DTP software that could be used to find a similar meaning for a word. [1]

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(c) The school would like to send parents a letter informing them of the ski trip meeting. Give the name of a feature of DTP software that can automatically combine names and addresses to send the same letter to many people. [1]

.....



2. Tick (✓) the correct box to show which of the following is *data*, which is *information* and which is *knowledge*. [3]

	DATA	INFORMATION	KNOWLEDGE
The athlete who ran the race in 15 seconds was the fastest and is the winner of the race	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
15 seconds, 17 seconds	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
15, 17	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>

3. (a) Tick (✓) the correct box to show which of the following statements about *Geographical Information Systems (GIS)* are **True** or **False**. [4]

Statements	True	False
You can see an aerial view of your school.	<input type="checkbox"/>	<input type="checkbox"/>
Sometimes the information about routes on a GIS is out of date.	<input type="checkbox"/>	<input type="checkbox"/>
All mobile phones have a built in GIS feature.	<input type="checkbox"/>	<input type="checkbox"/>
GIS can determine the distance from one place to another.	<input type="checkbox"/>	<input type="checkbox"/>

(b) Mobile phones use Bluetooth technology. Give **one advantage** and **one disadvantage** to the **user** of using Bluetooth connectivity. [2]

Advantage

.....

Disadvantage

.....



4. A school keeps records of students going on the ski trip in a computer database. Part of this database is shown below.

Student ID Number	Name	Gender	DOB	Ski Ability	Paid
1378	T Taylor	M	18/05/1997	Beginner	Yes
1321	N Khan	M	25/06/1997	Intermediate	No
1354	P Andrews	F	14/03/1997	Advanced	Yes
1367	C Jones	F	46/07/1997	Advanced	Yes
1245	K Parry	F	28/07/1997	Intermediate	Yes
1379	M Singh	M	21/12/1996	Beginner	Yes
1327	J Squires	F	13/04/1997	Beginner	No

(a) State how many fields are shown in the above database. [1]

(b) State how many records are shown in the above database. [1]

(c) Name the key field [1]

(d) State the purpose of the key field. [1]

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.....

(e) Tick (✓) the correct box to show which of the following data types is used for the **Name** field. [1]

Data Type	Tick (✓)
NUMBER	<input type="checkbox"/>
CURRENCY	<input type="checkbox"/>
TEXT	<input type="checkbox"/>



(f) The **Gender** field is coded. Give **two** *advantages* of encoding data in a database. [2]

Advantage 1

.....

Advantage 2

.....

(g) The school wants to find the students who are beginners and who have paid for the trip. Complete the table below to show how they can obtain this information from the database. [2]

Field Name	Operator	Search Criteria
	=	

AND

Field Name	Operator	Search Criteria
	=	

(h) The database contains an error. **State** the error and **describe** a suitable validation technique that could have prevented the error. [3]

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5. Email is widely used by many people.

(a) Tick (✓) the correct boxes to show whether the following statements about email are True or False. [4]

Statements	True	False
You can attach files to an email.	1 <input type="checkbox"/>	2 <input type="checkbox"/>
You can send an email to many people at the same time.	3 <input type="checkbox"/>	4 <input type="checkbox"/>
You must be at home to receive an email.	5 <input type="checkbox"/>	6 <input type="checkbox"/>
You need an email address to receive email.	7 <input type="checkbox"/>	8 <input type="checkbox"/>

(b) Carbon Copy (CC) and Blind Carbon Copy (BCC) are both features of email.

(i) State what is meant by Carbon Copy (CC). [1]

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(ii) Explain the difference between Carbon Copy (CC) and Blind Carbon Copy (BCC). [1]

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6. Many people shop online.

(a) Tick (✓) the correct boxes to show whether the following statements about online shopping are *advantages* or *disadvantages* to the customer. [5]

Statements	Advantage	Disadvantage
Allows disabled people to shop from home.	1 <input type="checkbox"/>	2 <input type="checkbox"/>
Wider choice of goods available.	3 <input type="checkbox"/>	4 <input type="checkbox"/>
You cannot check the quality of goods before purchasing.	5 <input type="checkbox"/>	6 <input type="checkbox"/>
Saves the cost of travelling to the shop.	7 <input type="checkbox"/>	8 <input type="checkbox"/>
Credit card information may be misused.	9 <input type="checkbox"/>	10 <input type="checkbox"/>

(b) Give **one** *advantage* and **one** *disadvantage* to a **company** of online shopping. [2]

Advantage to company

.....

Disadvantage to company

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(c) Give **one** method of finding products on a *website*. [1]

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7. Biometrics can be used in school to register students. Give **two advantages** and **one disadvantage** of this method. [3]

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8. A school uses a spreadsheet to keep track of payments for a trip, as shown below.

	A	B	C	D	E	F	G	H	I	J	K
1	Total Cost of Trip	£780									
2	Student Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Amount Paid	Amount to Pay	Status
3	J Jones	£250	£50	£50	£50	£50	£50	£50	£550	£230	Not Fully Paid
4	C White	£250	£60	£60	£60	£100	£150	£100	£780	£0	Trip Paid
5	H Vasoya	£250	£50	£50	£50	£50	£30	£300	£780	£0	Trip Paid
6	S Evans	£250	£100	£75	£75	£75	£75	£50	£700	£80	Not Fully Paid
7	S Peters	£250	£50	£50	£50	£50	£150	£100	£700	£80	Not Fully Paid
8	L Lamb	£250	£200	£50	£50	£50	£40	£10	£650	£130	Not Fully Paid

(a) Give the *data* in cell C4.

[1]

(b) State how the number in cell B3 has been formatted.

[1]

(c) Which of the following formulas could be used to give the **Amount Paid** in cell I3? [1]

A =SUM(B3:H3)

B =B2+C2+D2+E2+F2+G2+H2

C =SUM(B2:F2)

D =B3+C3+D3+E3+F3+G3+H3+I3

(d) The cell K3 contains the formula =IF(J3=0, "Trip Paid", "Not Fully Paid").

Which **one** of the following formulas would you expect to be used in cell K4? [1]

A =IF(J1=0, "Trip Paid", "Not Fully Paid")

B =IF(J4=0, "Trip Paid", "Not Fully Paid")

C =IF(J3=0, "Trip Paid", "Not Fully Paid")

D =IF(J2=0, "Trip Paid", "Not Fully Paid")



(e) The formula used to calculate the **Amount to Pay** in cell **J3** is =B\$1-I3. State the type of cell referencing used in this formula. [1]

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(f) Give **two advantages** of using a spreadsheet to keep track of payments. [2]

Advantage 1

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Advantage 2

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9. Control systems are used in schools.

Other than heat sensors, describe how **three** different sensors are used in schools. In your answer refer to what **each** measures. Use *distinctly* different examples in **each** case. [3×2]

Sensor 1

What is measured

Description of use in school

Sensor 2

What is measured

Description of use in school

Sensor 3

What is measured

Description of use in school



10. ICT is used for home entertainment.

(a) Give **two** interactive services available through digital TV. [2]

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(b) (i) *Other than updating your status, give **two** different uses of social networking for home entertainment.* [2]

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(ii) Give **one** reason why you should **not** give away personal details on a social networking account. [1]

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(c) (i) Explain what is meant by the term *webcam*. [1]

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(ii) Give **one** *advantage* and **one** *disadvantage* of using a webcam. [2]

Advantage

Disadvantage

(d) There are several health hazards associated with the use of a computer for long periods of time. Describe **two** different health hazards **and** for each give a method of preventing it. [4]

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11. Online Tutorials and Online Assessment are ways in which ICT is used in education.

- (i) Name and describe how **four** specific but *different* features of Online Tutorials and Assessment are used in education. [4]

Remember that the quality of written communication will be assessed in this question.

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- (ii) Discuss the general advantages and disadvantages of Online Tutorials and Assessment. [8]

Remember that the quality of written communication will be assessed in this question.

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END OF PAPER



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Question number	Additional page, if required. Write the question numbers in the left-hand margin.
	<p>Lined area for writing question numbers.</p>

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