Surname		Centre Number	Candidate Number
Other Names			0

GCSE

WJEC CBAC

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

Suitable for Modified Language Candidates

Examiner only

Total Marks	

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.**

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SJJ*(S13-4331-01) ML

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	1
Bullet points	2
Table	3
Centre text	4
Underline	5
Border Art	6
Italic Font	7

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

....

(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]

....

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

	DATA	INFORMATION	KNOWLEDGE
The athlete who ran the race in 15 seconds was the fastest and is the winner of the race	1	2	3
15 seconds, 17 seconds	4	5	6
15, 17	7	8	9

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

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Sometimes the information about routes on a GIS is out of date.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

(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]

....

....

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

Data Type	Tick (✓)
NUMBER	
CURRENCY	
TEXT	

(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. **Describe** a suitable validation technique that could have prevented the error. [3]

Error ....

Validation technique ....

....

....

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	2
You can send an email to many people at the same time.	3	4
You must be at home to receive an email.	5	6
You need an email address to receive email.	7	8

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

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

....

....

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

....

....

....

....

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	2
Wider choice of goods available.	3	4
You cannot check the quality of goods before purchasing.	5	6
Saves the cost of travelling to the shop.	7	8
Credit card information may be misused.	9	10

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

Advantage to company ....

....

....

Disadvantage to company ....

....

....

(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. This is 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 =B1–I3. State the type of cell referencing used in this formula. [1]

....

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

Advantage 1 ....

....

Advantage 2 ....

....

9. Control systems are used in schools.

Describe how **three** different sensors are used in schools. In your answer refer to what **each** measures. Use *distinctly* different examples in **each** case. Do **not** describe heat sensors in your answer.   [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]

....

....

(b) (i) Give **two** *different* uses of social networking for *home entertainment.* Do **not** give *updating your status* for your answer. [2]

....

....

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

....

....

....

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

....

....

(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. Give a method of preventing each health hazard. [4]

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(4331-01)   **Turn over.**

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

   (i)   Name **four** specific but *different* features (characteristics) of Online Tutorials and Assessment. Describe how these four features 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.