

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**

P.M. TUESDAY, 13 January 2015

1 hour 30 minutes

For Examiner's use only		
	Maximum Mark	Mark Awarded
Total	80	

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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 pages 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 **10**.



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Answer all questions.

1. A school is creating a new canteen menu.

Below is a first draft of a poster to advertise the menu.

The first Monday in every month is Italian Day
MENU
Mains: Pasta, Lasagne, Vegetarian lasagne
Extras: Garlic bread, Fresh salad, Roasted vegetables
Desserts: Fresh fruit, Ice cream

(a) Give **four** features of Desktop Publishing (DTP) software that could be used to improve the document above. [4]

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(b) Give the feature of DTP software that could be used to find spelling mistakes. [1]

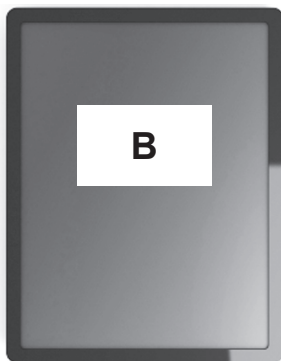
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2. One type of touch sensitive device is a *tablet computer*. Tablet computers **A** and **B** have the features shown in the tables below.



Tablet A	
Screen size	10 inch
Memory capacity	16 GB
Connectivity	Wi-fi, Bluetooth
Camera	Front – 1.3 megapixels Rear – 5 megapixels



Tablet B	
Screen size	10 inch
Memory capacity	32 GB
Connectivity	Wi-fi, Bluetooth, 4G
Camera	Front – 1.3 megapixels Rear – 12 megapixels

- (a) Give **one** advantage of having a 12 megapixel camera over a 5 megapixel camera. [1]

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- (b) State, giving a reason, the tablet that would be able to store the most data. [2]

Tablet:

Reason:

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- (c) *Other than Bluetooth*, give **two** ways these tablets could connect with the internet. [2]

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(d) Many tablets available today have *geographical information systems (GIS)*. Give **two** uses of GIS on a tablet. [2]

Use 1

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Use 2

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3. (i) **Tick (✓)** the boxes below to show which **two** of the following are *biometric methods* used by schools to register students. [2]

Method **Tick (✓) only two boxes**

OMR

1

Retina scanning

2

Fingerprint scanning

3

Swipe cards

4

(ii) Describe **two advantages** and **two disadvantages** of using biometric registration systems. [4]

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4. Many families book their cinema tickets online, as shown on the form below.

Book Tickets – Use the drop down lists below to choose your tickets

1. Select a cinema ▼

2. Select a date/day ▼

3. Select a film ▼

Personal Details – Please enter your personal details below

First Name:

Surname:

Email Address:

Please confirm your Email Address:

DOB: (Must be a real date DD/MM/YY)

(a) Other than the data shown in the form above, name **three** different items of data that may need to be entered when booking a cinema ticket online. [3]

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(b) Tick (✓) the correct boxes to show whether the following are examples of verification or validation. [4]

	Verification	Validation
Drop down menu to select cinema	1 <input type="checkbox"/>	2 <input type="checkbox"/>
Entering the email address twice	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Proof reading the online form before submitting	5 <input type="checkbox"/>	6 <input type="checkbox"/>
Must be a real date	7 <input type="checkbox"/>	8 <input type="checkbox"/>

(c) Describe **two advantages** and **one disadvantage** of online booking to the customer. [3]

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5. The Sports department keeps a record of all students in the school hockey team on a computer database.

Part of this database is shown below.

Student ID	Name	Gender	Year	Position	Date First Played	Plays for County
235	Williams K	M	10	Forward	01/09/2014	N
237	Tomiuka T	F	10	Goalkeeper	08/10/2014	Y
377	Venn L	F	11	Defender	01/09/2014	N
127	Smith F	M	9	Forward	05/01/2015	N
414	Rees A	F	12	Defender	08/09/2014	Y
339	Grant L	F	11	Midfielder	05/01/2015	Y
333	Smith T	M	11	Defender	01/09/2014	N
395	Ali M	F	11	Midfielder	09/01/2015	Y
129	Jones D	M	9	Midfielder	05/01/2015	N

- (a) The **Student ID** is a *key field*. State the purpose of a key field. [1]

- (b) After the data is sorted by **Student ID** in *ascending* order, state the name of the student who would appear at the top of the list. [1]

- (c) State how many students would be found with the following search. [1]

Position = "Defender"	AND	Gender = "F"
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- (d) *Other than text*, give **two** different data types used to create the database. [2]

Data Type 1

Data Type 2



(e) *Other than creating a backup*, give **two** different ways the data held in the database can be kept safe and secure. [2]

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(f) Give **two different** types of validation methods that could be used on this database, stating in **each** case which field they would be applied to. [2]

Method and Field 1

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Method and Field 2

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6. Schools use ICT for teaching and learning.

- (a) A student needs to find information on global warming. Give **three** suitable electronic **sources of information** that could be used to find this information. [3]

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- (b) (i) **Tick (✓)** the correct boxes to show which **three** of the following are features that allow you to manage the desktop environment. [3]

Feature	Tick (✓)
Creating shortcuts	<input type="checkbox"/> 1
Renaming folders	<input type="checkbox"/> 2
Data logging	<input type="checkbox"/> 3
Videoconferencing	<input type="checkbox"/> 4
Creating autoshapes	<input type="checkbox"/> 5
Adjusting icon size	<input type="checkbox"/> 6

- (ii) State **three** other *different* features students could use to manage the desktop environment. [3]

Feature 1

Feature 2

Feature 3



- (c) (i) State **two different** features of online tutorials, and for **each** feature, give an example of how it could be used to support teaching and learning. [4]

Feature 1

Example of use

Feature 2

Example of use

- (ii) Describe **one** advantage of using online tutorials. [1]

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7. A parents association has created a spreadsheet to keep track of uniform sales. Part of the spreadsheet is shown below.

	A	B	C	D	E	F	G
1	Amount Ordered (Per Item)	250					
2	Item	Cost Price	Sale Price	Quantity Sold	Total Profit	Amount Left	Status
3	Boy's school trousers	£4.49	£5.49	150	£150.00	100	Stock level okay
4	Boy's school jumper	£6.99	£7.99	100	£100.00	150	Stock level okay
5	Boy's blazer	£4.99	£5.99	125	£125.00	125	Stock level okay
6	Girl's skirt	£4.99	£5.99	130	£130.00	120	Stock level okay
7	Girl's black trousers	£4.49	£5.49	125	£125.00	125	Stock level okay
8	Girl's school jumper	£6.99	£7.99	220	£220.00	30	Order more stock
9	Tie	£6.99	£7.99	245	£245.00	5	Order more stock
10	Girl's PE top with logo	£5.99	£6.99	175	£175.00	75	Stock level okay
11	Boy's PE top with logo	£5.99	£6.99	210	£210.00	40	Order more stock
Total					£1,480.00		

- (a) Give the data in Cell **A9**.

[1]

- (b) The formula used in Cell **F7** is **=\$B\$1-D7**. Tick the correct box to show which type of cell referencing has been used on **\$B\$1**.

[1]

Referencing **Tick (✓)**

Absolute

Relative

Conditional



(c) Give the correct formula used to calculate the Total Profit in Cell **E3**. [1]

A $= (B3 - C3) * D3$

B $= B3 + C3 + D3 + E3$

C $= (C3 - B3) * D3$

D $= B3 * C3$



(d) Give a suitable formula for working out the **Sale Price** in Cell **C10**. [1]

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(e) If the **Amount Left** falls below 50, then the message in column G will change.

Write down the IF statement that should be in **Cell G3**. [1]

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8. ICT is widely used for home entertainment.



(a) Other than making phone calls or downloading music and apps, give **three different** uses of a mobile phone. [3]

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(b) People download music from the Internet. Describe **two** advantages and **one** disadvantage of downloading music. [3]

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9. ICT is used to monitor the weather.

(a) State **two** different sensors used to collect weather data. [2]

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(b) One method of displaying weather information is in a table. Give **two** other different methods of displaying weather information. [2]

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(c) Describe **two** advantages of an ICT based weather monitoring system. [2]

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10. E-mail is widely used. *Describe six advantages of using email to communicate. Give three ways in which email can be misused and, for each misuse, describe a distinctly different prevention.* [12]
Remember that the quality of written communication will be assessed in this question.

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