

Surname	Centre Number	Candidate Number
Other Names		0



GCSE

4331/01



S15-4331-01

INFORMATION AND COMMUNICATION TECHNOLOGY

**UNIT 1: Understanding ICT
(Short Course) INFORMATION AND COMMUNICATION TECHNOLOGY**

UNIT 1: Understanding ICT

A.M. WEDNESDAY, 13 May 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 **11**.



MAY1543310101


Answer all questions.

- 1. A poster has been created using desktop publishing software (DTP) to advertise a school's outdoor pursuits trip.


OUTDOOR PURSUITS TRIP

JULY 22ND 2015

£125 PER STUDENT



- Kayaking
- Rock climbing
- Coasteering
- Orienteering



- (a) Name **four** DTP features that have been used to create the poster. [4]

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- (b) A teacher creates a presentation to advertise the trip.

- (i) Name **one** feature that allows you to navigate around a presentation. [1]

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- (ii) Other than *navigation* and *DTP features*, give **two** features of *presentation software* that could be used to make the presentation more interesting. [2]

Feature 1

.....

Feature 2

.....



- (c) Other than *desktop publishing* (DTP) and *presentation software*, state **two** different types of software that could be used **and** give an example of how **each** could be used in organising the trip. [2×2]

Type of software 1

Example of use

Type of software 2

Example of use

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

EXAMPLE	DATA	INFORMATION	KNOWLEDGE
The highest amount raised was £27.50 and this meant that John won the prize	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Sponsored walk money raised £21, £26, £27.50	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>
21, 26, 27.50	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>



3. Many people use digital photography in the home.

(a) **Tick (✓)** the correct boxes to show which of the following devices are used for input **or** output. **The first one has been done for you.** [3]

Device	Input	Output
Microphone	✓	
Camera display screen		
Scanner		
Printer		

(b) Give a *storage medium* used in digital photography. [1]

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(c) Describe **two advantages** of digital photography. [2]

Advantage 1

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.....

Advantage 2

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4. A school has created a database to show all students who are going on an outdoor pursuits trip. Part of the database is shown below.

Student ID	Name	Address	Year	Gender	Medical Information	Swimmer?	Paid in Full
1375	S Jones	5 Hill Street	10	M	None	Y	Y
1344	H Smith	17 Fields Road	11	F	None	N	Y
1347	S Jones	12 Green Way	11	M	Asthma	Y	Y
1356	A Squires	27 Oak Place	11	F	Epilepsy	Y	Y
1389	N Khan	33 Oak Place	10	F	None	Y	Y
1350	D Jones	12 Grange Road	9	M	None	Y	Y
1355	L Williams	24 Sandpiper Way	9	M	Asthma	N	Y

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

(b) Other than *Postcode* and *Address* fields, give **one** other sensible field that could be added to the database. [1]

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(c) There are two different students named S Jones in the database, explain how **the school** has ensured differentiation between them. [2]

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(d) The teacher would like to add **Postcode** as a field name. Give a sensible *data type* and *validation technique* for this new field. [2]

Data Type

Validation Technique



5. ICT is used for teaching and learning.

- (a) (i) Other than *changing font size*, give **two** different methods that could be used to customise the desktop environment for a visually impaired student. [2]

Method 1

Method 2

- (ii) Give **two** different ways *folders* can be managed in a desktop environment. [2]

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- (b) Give **three** specialist input devices that assist students with disabilities with their learning. [3]

Input Device 1

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Input Device 2

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Input Device 3

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- (c) Many tablet computers use application software, commonly known as 'apps'.

Give a *specific example* of how a student could use an app to help them improve their learning. [1]

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6. (a) Management information systems are used in schools and colleges.

Describe **three** ways that a management information system can be used to assist in the administration of a school or college. [3]

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(b) ICT systems are used to register students.

Other than *online registration*, name **two** methods of electronic registration and for **each** give **one different** advantage and **one different** disadvantage. [2×3]

Method 1

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Method 2

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7. Using computers for long periods of time can cause health problems. Give a **different** prevention for each of the **three** following health hazards. [3]

Health Hazard	Prevention
Eye strain	
Back strain	
Repetitive strain injury	

8. A teacher has created a spreadsheet to record examination results. Some of the results are shown below.

	A	B	C	D	E	F	G
1	Pass Mark	150					
2	Surname	First Name	Exam 1	Exam 2	Exam 3	Total Mark	Pass or Fail
3	Squires	Amy	56	45	43	144	Fail
4	Thomas	Jamie	71	70	74	215	Pass
5	Venn	Louise	55	50	53	158	Pass
6	Grant	Joseph	66	65	60	191	Pass
7	Hassan	Nargis	52	50	58	160	Pass
8	Day	Lewis	34	47	51	132	Fail
9	Stokes	Georgia	25	37	48	110	Fail
10							
11	Average Mark		51	52	55	159	

- (a) Give the data in cell **C2**. [1]

- (b) Give the correct formula used to calculate the **Total Mark** in cell **F3**. [1]

A = SUM(B4:E4)

B = A3+B8+C8+D8+E8

C = SUM(C3:E3)

D = B3+C3+D3+E3+F3



(c) Give a suitable formula for working out the Average in cell **E11**. [1]

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(d) **Circle** the correct word below to give the name of the function used to determine if the student has passed or failed the examination as shown in cell **G3**. [1]

IF

COUNTIF

MAX

(e) State **two** advantages of using a spreadsheet to calculate or analyse examination results. [2]

Advantage 1

.....

Advantage 2

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(f) Using absolute cell referencing, give a suitable formula for cell **G3**. [1]

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9. Sporting event tickets can be booked online.

(a) Give **three advantages** and **one disadvantage** to a *customer* of booking sporting event tickets online. [4]

Advantage 1

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Advantage 2

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Advantage 3

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Disadvantage

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(b) The customer will need to create an account and verify they have input their password correctly, as shown in the picture below.



Tick (✓) the correct box to show which **one** of the following is a method of verification for entering a password. [1]

Proofreading

Double keying

Range check



10. A family use the internet for home entertainment.

- (a) Give **one advantage** and **one disadvantage** of using broadband to access the internet rather than dial-up. [2]

Advantage

.....

Disadvantage

.....

The family also has an interactive TV.

- (b) (i) Give **two** services available via interactive TV which are used for home entertainment. [2]

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The family also make use of social networking.

- (ii) Describe **three** specific dangers of social networking and describe **three different** ways parents can protect their children from these dangers. [3×2]

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- (c) Name and describe an emerging technology in home entertainment. [2]

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11. Simple control systems are used in schools and in the home.

(a) Describe **two different** types of control systems used in schools. [2×3]

For **each** control system described you must:

- **name** and **describe** how the control system works;
- **name** a sensor used for the control system (must be *different* for each system);
- **name** an output device used in the control system.

Remember that the quality of written communication will be assessed in both parts (a) and (b) of this question.

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