

Surname	Centre Number	Candidate Number
Other Names		0



GCSE

4333/01

**INFORMATION AND
COMMUNICATION TECHNOLOGY
UNIT 3: ICT IN ORGANISATIONS**

A.M. FRIDAY, 2 March 2012

1½ hours

Examiner's Use Only		
Question	Maximum Mark	Mark Awarded
1.	4	
2.	11	
3.	10	
4.	5	
5.	7	
6.	7	
7.	8	
8.	7	
9.	7	
10.	4	
11.	10	
Total Mark	80	

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

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.

Where the space is not sufficient for your answer, continue the answer at the back of the book, taking care to number the continuation 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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1. Tick (✓) to show if the devices listed below are used for input or output.

[4]

DEVICE	NAME	INPUT	OUTPUT
	Mouse	1 <input type="checkbox"/>	2 <input type="checkbox"/>
	Monitor	3 <input type="checkbox"/>	4 <input type="checkbox"/>
	Scanner	5 <input type="checkbox"/>	6 <input type="checkbox"/>
	Speaker	7 <input type="checkbox"/>	8 <input type="checkbox"/>

4

2. (a) Complete the sentences below to show the difference between vector and bitmap graphics. Use each word or phrase only once. [6]

PHOTOS	SMALLER	OBJECTS	KEEP QUALITY
LOSE QUALITY	PIXELS	GAIN QUALITY	LARGER

- (i) Bitmap images are made up of
- (ii) Vector graphics are scaleable
- (iii) Bitmap files tend to be in size.
- (iv) Vector image files tend to be in size.
- (v) When a bitmap image is enlarged you
- (vi) When a vector image is enlarged you

(b) Name **two** digital imaging tools used to edit photographs. [2]

- (i)
- (ii)

(c) Give **three** factors you should consider when preparing an image for a website. [3]

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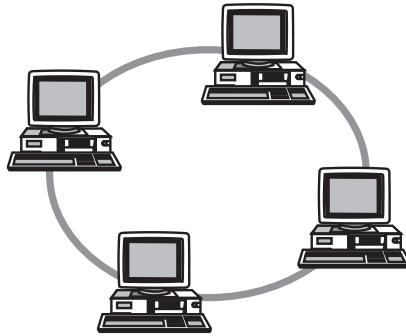
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3. (a) Name the topology of the network shown below. [1]



..... Network

(b) Tick (✓) to show if the following statements about networks are **True** or **False**. [4]

	True	False
A LAN is usually located in a single building.	<input type="checkbox"/> 1	<input type="checkbox"/> 2
A WAN covers a wide geographical area.	<input type="checkbox"/> 3	<input type="checkbox"/> 4
The Internet is a small group of computers joined together.	<input type="checkbox"/> 5	<input type="checkbox"/> 6
An Intranet is a closed, private network.	<input type="checkbox"/> 7	<input type="checkbox"/> 8

(c) Tick (✓) to show if the following devices are used in networks. [3]

ROUTERS	<input type="checkbox"/> 1
WALKWAYS	<input type="checkbox"/> 2
GATEWAYS	<input type="checkbox"/> 3
BRIDGES	<input type="checkbox"/> 4
ROUNDBABOUTS	<input type="checkbox"/> 5

(d) Give **two** methods of protecting data on a network. [2]

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4. (a) Name the following types of Human Computer Interfaces.

[4]

(i)



Interface

(ii)



Interface

(iii)



Interface

(iv)



Interface

(b) Name **one other** type of Human Computer Interface, other than those shown above. [1]

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5

5. Presentations can contain animations.

(a) State what is meant by an *animation*. [1]

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(b) Animators use several techniques including *rotoscoping* and *stop motion*.

(i) Describe what is meant by *rotoscoping*. [2]

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(ii) Describe what is meant by *stop motion*. [2]

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(c) Explain the importance of *frame rates* in animation. [2]

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7

6. (a) A shop sells games, books and DVDs online. Part of its website is shown below.



Complete the table below by matching the labels **A**, **B**, **C** and **D** shown in the diagram to each of the website features listed. [4]

FEATURE	LABEL
SEARCH BOX	1
HOTSPOT	2
HYPERLINK	3
SHOPPING BASKET	4

- (b) When creating an online account a customer must type their email address in twice. Give a reason why they need to type the address in twice. [1]

(c) Customers can also download music from the website.

- (i) Give **one advantage** of downloading music from the internet. [1]

- (ii) Give **one disadvantage** of downloading music from the internet. [1]

7. Many laws have been introduced to deal with issues arising from the use of computers.

(a) Place the appropriate letter in the table below to show which Act deals with each issue. [3]

- A Computer Misuse Act
- B Electronic Communications Act
- C Regulation of Investigatory Powers Act

ISSUES	LETTER
Allows legal interception of emails	<input type="checkbox"/>
Makes use of digital signatures legal	<input type="checkbox"/>
Makes hacking illegal	<input type="checkbox"/>

(b) (i) Give **three** principles of the Data Protection Act (DPA). [3]

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(ii) Name **two** exemptions from the DPA. [2]

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8. Answer the following questions using **one** application chosen from the list.

- banking
- payroll
- expert systems
- e-commerce systems

Name your chosen application.

Application

(a) Give **two** specific uses of ICT in your chosen application. [2]

Use 1

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Use 2

.....

(b) State **one** method of data capture used in your chosen application. [1]

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(c) Give **two advantages** of using ICT for your chosen application. [2]

Advantage 1

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Advantage 2

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(d) Give **two disadvantages** of using ICT for your chosen application. [2]

Disadvantage 1

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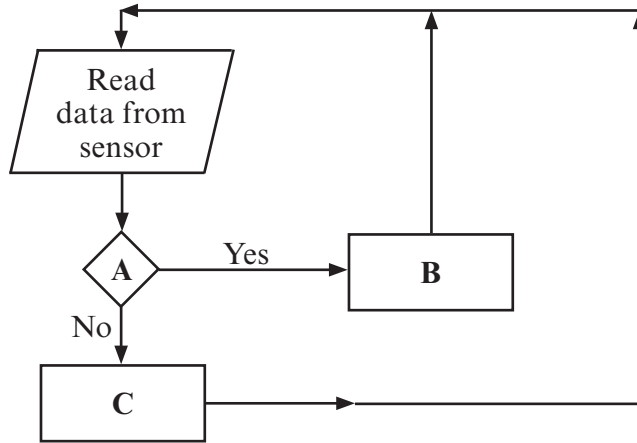
Disadvantage 2

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9. The diagram below describes a general control system. Name a control system you have studied and answer the following questions.



Name of control system you have studied.

- (a) Name a sensor and an output device used in the control system you have named above. [2]

Sensor

Output device

- (b) Complete the table for the control system you have named above, giving suitable processes for the letters **A**, **B** and **C** indicated in the diagram. [3]

A
B
C

(c) Give **one** *advantage* of using computers to control the system.

[1]

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(d) Give **one** *disadvantage* of using computers to control the system.

[1]

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10. A company keeps its payroll data in a spreadsheet. Part of this spreadsheet is shown below.

	A	B	C
1	Employee Code	Rate of pay	Hours worked per week
2	001	£7.20	35
3	002	£7.50	27
4	003	£8.40	37
5	004	£8.20	1000
6	Validation		
7	10		
8	4		

(a) The company uses validation techniques to ensure no errors are made.

(i) What is meant by the term *validation*?

[1]

(ii) Using only words from the list below, state which validation technique has been used in cells A7 and A8.

[2]

HASH TOTAL

INPUT MASK

LENGTH CHECK

BATCH TOTAL

(I) A7

(II) A8

(b) Suggest a validation technique which could have prevented the error in cell C5.

[1]

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