

Surname	Centre Number	Candidate Number
Other Names		0



**GCSE**

4333/01



S16-4333-01

**INFORMATION AND COMMUNICATION TECHNOLOGY**

**UNIT 3: ICT in Organisations**

P.M. THURSDAY, 26 May 2016

1 hour 30 minutes

For Examiner's use only		
	Maximum Mark	Mark Awarded
<b>Total</b>	<b>80</b>	

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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 **12**.



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*Answer all questions.*

1. ICT uses many input and output devices, for example a customer could input their personal details using a keyboard.

Name **three** other **different** ICT devices used for input or output and **tick** (✓) the correct boxes to show whether each device is used for input or output. [6]

DEVICE	INPUT	OUTPUT
.....	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>

2. (a) To enable a musical instrument and a computer to communicate with each other, an interface is required. **Name** this interface and explain in detail what it does. [3]

.....

.....

.....

.....

.....

.....



(b) Give **three** different benefits of using software to compose music. [3]

**Benefit 1:** .....

.....

.....

**Benefit 2:** .....

.....

.....

**Benefit 3:** .....

.....

.....

(c) **Tick (✓)** the correct boxes below to show whether the following statements about sound files are true or false. [3]

STATEMENT	TRUE	FALSE
WAV format sound files generally take more storage space than WMA files.	1 <input type="checkbox"/>	2 <input type="checkbox"/>
A sound clip stored in MP3 format would be of better quality than the same clip stored in the WAV format.	3 <input type="checkbox"/>	4 <input type="checkbox"/>
At lower sampling rates, the file sizes of WMA and MP3 are similar.	5 <input type="checkbox"/>	6 <input type="checkbox"/>



3. Employees of an organisation often use presentation software to present their ideas.

(a) State what is meant by the following presentation software terms. [3]

**Transitions:** .....  
.....  
.....

**Timings:** .....  
.....  
.....

**Bookmarks:** .....  
.....  
.....

(b) Describe **one** different use of narration in a presenter's slideshow. [1]

.....  
.....  
.....  
.....

(c) Give **two** benefits of using templates to create a slideshow. [2]

**Benefit 1:** .....  
.....  
.....

**Benefit 2:** .....  
.....  
.....



(d) Give **two** disadvantages of using presentation software.

[2]

**Disadvantage 1:** .....

.....

.....

**Disadvantage 2:** .....

.....

.....

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4. Different types of *Human-Computer Interface (HCI)* are used in ICT systems. A Graphical User Interface (GUI) is a commonly used type of HCI.

Other than GUI, name **two** different types of *HCI* and for each, give a **different** advantage and **different** disadvantage. [6]

**HCI 1**

**Name:** .....

**Advantage:** .....

.....

.....

.....

.....

**Disadvantage:** .....

.....

.....

.....

.....

**HCI 2**

**Name:** .....

**Advantage:** .....

.....

.....

.....

**Disadvantage:** .....

.....

.....

.....

.....



5. (a) Photo editors use tools and techniques to create and manipulate still images. Name **two** of these tools or techniques. [2]

**Tool / Technique 1:** .....

**Tool / Technique 2:** .....

(b) A photo editor can choose in which format to save the images. The list below shows three of these formats.

**Tick (✓)**

JPEG

GIF

BMP

**Tick (✓) one** of the image file formats listed above and give **one** advantage and **one** disadvantage of the format. [2]

**Advantage:** .....

.....

.....

.....

**Disadvantage:** .....

.....

.....

.....



6. (a) Complete the following sentences about *animation techniques*, using only the words given below.

- |                 |                     |                       |                    |
|-----------------|---------------------|-----------------------|--------------------|
| <b>3D</b>       | <b>Backdrops</b>    | <b>Stop motion</b>    | <b>Rotoscoping</b> |
| <b>Tweening</b> | <b>Leader board</b> | <b>Onion skinning</b> | <b>Grouping</b>    |

(i) ..... is an animation technique where models are moved a small amount each time between taking photographs. When the frames are played back it appears as if the model is moving. [1]

(ii) Animators may make previous frames visible to help track the motion of an object. This is called ..... [1]

(iii) ..... is the technique of using a photograph and tracing each frame to create a life-like motion. [1]

(iv) An animator can use ..... to combine separate objects to animate them at the same time. [1]

(b) Name **two** documents often produced when planning an animation. [2]

**Document 1:** .....

**Document 2:** .....

(c) Animators experiment with different frame rates when creating an animation. Describe the effects that the following may have on an animation. [2]

- **Increasing the frame rate excessively**
- **Decreasing the frame rate excessively**

.....

.....

.....

.....

.....

.....

.....

(d) 'The human eye continues to see an image for a short period after the image has disappeared'. Name this effect. [1]

.....





7. Many high-street banks offer an online banking facility.

(a) Give **three services** offered to customers by online banking. [3]

**Service 1:** .....

.....

**Service 2:** .....

.....

**Service 3:** .....

.....

(b) Give **three advantages** of online banking to the customer. [3]

**Advantage 1:** .....

.....

**Advantage 2:** .....

.....

**Advantage 3:** .....

.....

(c) Give **two drawbacks** of online banking to the bank. [2]

**Drawback 1:** .....

.....

**Drawback 2:** .....

.....



8. The use of ICT has had an impact on the way people work.

(a) Give **one** advantage and **one** disadvantage of teleworking to the *employee*. [2]

**Advantage:** .....  
.....  
.....

**Disadvantage:** .....  
.....  
.....

(b) Give **one** advantage and **one** disadvantage of teleworking to the *employer*. [2]

**Advantage:** .....  
.....  
.....

**Disadvantage:** .....  
.....  
.....



9. (a) Artificial Intelligence (AI) is used by some organisations, state what is meant by the term Artificial Intelligence. [1]

.....  
.....  
.....

(b) Give **two** specific uses of artificial intelligence. [2]

**Use 1:** .....

.....  
.....

**Use 2:** .....

.....  
.....

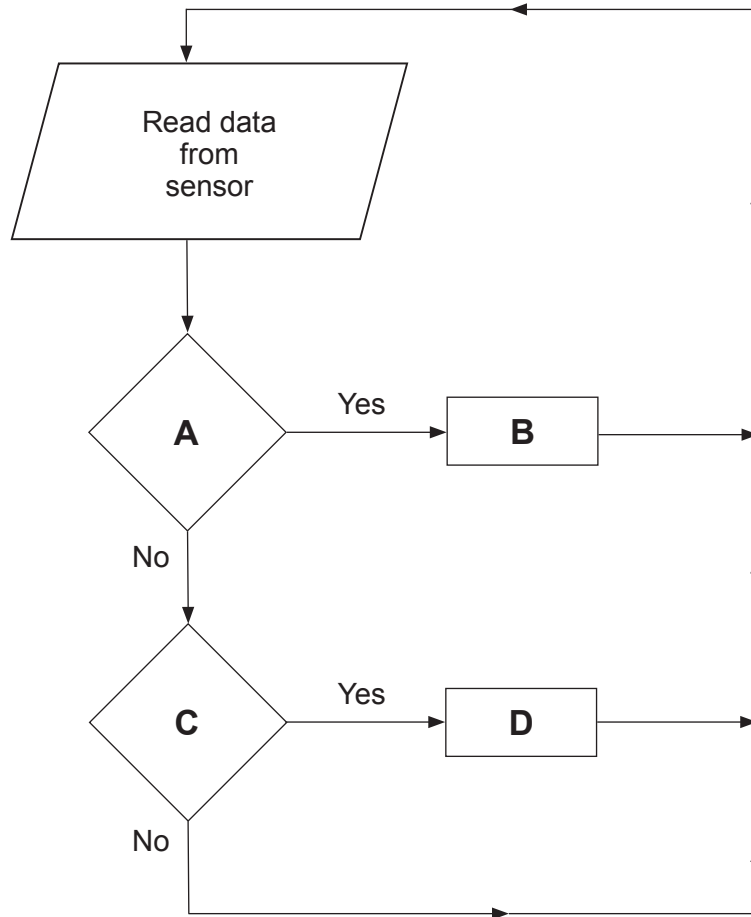
(c) Give **one** advantage of artificial intelligence. [1]

.....  
.....  
.....



10. An organisation's server room temperature needs to be kept between 18 °C and 24 °C to ensure that equipment is not damaged.

The incomplete diagram below shows the ICT control system used to ensure this.



(a) Name a sensor and **two devices** that could be used in this control system. [3]

**Sensor:** .....

**Device 1:** .....

**Device 2:** .....



(b) Complete the following table for this control system, giving a suitable process for the letters **A**, **B**, **C** and **D** labelled in the diagram opposite. [4]

<b>A</b>	
<b>B</b>	
<b>C</b>	
<b>D</b>	

11. Describe **three** environmental impacts of the increased use of ICT. [3]

**Impact 1:** .....

.....

.....

**Impact 2:** .....

.....

.....

**Impact 3:** .....

.....

.....



**12.** A new organisation is designing its network infrastructure.

The organisation is situated across two different buildings on the same site and will also require access to the Internet and its suppliers' networks.

The organisation has commissioned you to write a report to discuss the options available to them in the design of the new network. Your report should include the following:

- A description of **four advantages** of using networks over standalone computers.
- The names of **two** different types of **network topology** that the organisation could consider using.
- Other than workstations and servers, name and describe the purpose of **three** other **hardware devices** that the organisation could use to control network communications and access between the two buildings and to remote sites. [12 QWC]

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

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Examiner  
only

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**END OF PAPER**



