| Surname | Centre Number | Candidate Number |
|---|---|---|
| Other Names | | 0 |

# GCSE

4333/01

# INFORMATION AND COMMUNICATION TECHNOLOGY

## UNIT 3: ICT In Organisations

P.M. WEDNESDAY, 21 May 2014

1 hour 30 minutes

**Suitable for Modified Language Candidates**

| 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 **12.**

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*Answer* **all** *questions.*

**1.** *(a)* **Tick (✓)** the correct boxes to show if the following devices are used for *Input* or *Output.* [2]

| DEVICE | INPUT | OUTPUT |
|---|---|---|
| Scanner | 1 ☐ | 2 ☐ |
| Webcam | 3 ☐ | 4 ☐ |

*(b)* Other than a touch sensitive screen, scanner or webcam, name **two** *other different* devices. **Tick (✓)** to show if the devices are used for either *Input* or *Output*. [4]

| DEVICE | INPUT | OUTPUT |
|---|---|---|
| ..... | ☐ | ☐ |
| ..... | ☐ | ☐ |



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*(c)* **Tick (✓)** the correct boxes to show which of the following statements about music files are **True** or **False**. [3]

| STATEMENT | TRUE | FALSE |
|---|---|---|
| A music clip stored in MP3 format would take up more memory than the same clip stored in WAV format. | 1 ☐ | 2 ☐ |
| Music files stored in MP3 format are better quality than files stored in WAV format. | 3 ☐ | 4 ☐ |
| MP3 files need to be decoded when used, which means they do not load as quickly as some other formats. | 5 ☐ | 6 ☐ |

*(d)* Give the **name** of the *interface* that allows a musical instrument and a computer to communicate with each other. [1]

.....

*(e)* Explain why sound signals need to be converted before they can be processed by a computer. [2]

.....

.....

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**2.** *(a)* Use the correct term from the list below to match each of the descriptions about *Presentation Software:*

**Transition** **Master page** **Bullet**

**HTML** **Animation** **Hotspot**

(i) Getting some of the content on a slide to move: ..... [1]

(ii) Movement from one slide to another: ..... [1]

(iii) An image containing a hyperlink: ..... [1]

*(b)* People often use presentation software to create a slideshow to display information.

(i) Give **two** reasons why you would use a *Template* when creating a slideshow. [2]

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(ii) Give **one** *disadvantage* of using presentation software. [1]

.....

.....

.....



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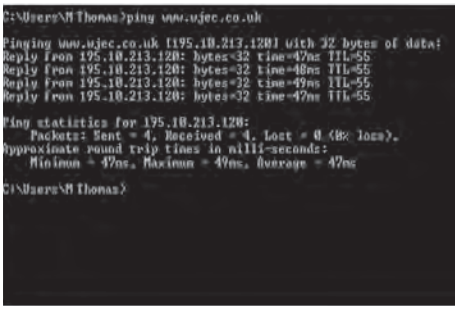
**3.** Different types of *Human-Computer Interfaces (HCI)* are used on ICT systems.

*(a)* **Name** the types of *HCI* shown below. [2]

| | |
|---|---|
|  | **HCI:** ..... |
| | **HCI:** ..... |

*(b)* **Tick (✓)** the correct boxes to show which *Application* best matches the *HCI.* [3]

| | HCI | | |
|---|---|---|---|
| **APPLICATION** | **MENU DRIVEN** | **VOICE DRIVEN** | **BIOMETRICS** |
| Retina scanning to gain access to a high-level security room | 1 | 2 | 3 |
| Making a cash withdrawal at an Automated Teller Machine | 4 | 5 | 6 |
| Using your mobile phone hands free | 7 | 8 | 9 |

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*(c)* Another type of HCI is a *Touch Sensitive* interface.

(i) Give **one** type of device which uses a touch sensitive screen/interface. Do not use mobile phones as your answer. [1]

.....

.....

(ii) Give **two** *advantages* of using a touch sensitive screen/interface. [2]

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

.....

.....

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

.....

.....

(iii) Give **one** *disadvantage* of using a touch sensitive screen/interface. [1]

.....

.....

.....



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**4.** *(a)* Give **three** *techniques* used to manipulate digital images. [3]

**Technique 1:** .....

**Technique 2:** .....

**Technique 3:** .....

*(b)* Give **two** *advantages* of *vector graphics* over *bit mapped graphics.* [2]

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

.....

.....

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

.....

.....

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**5.** Describe how *Point of Sale (PoS)* systems are used in supermarkets for automatic stock control. [5]



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**6.** Different animation techniques are used to produce animations.

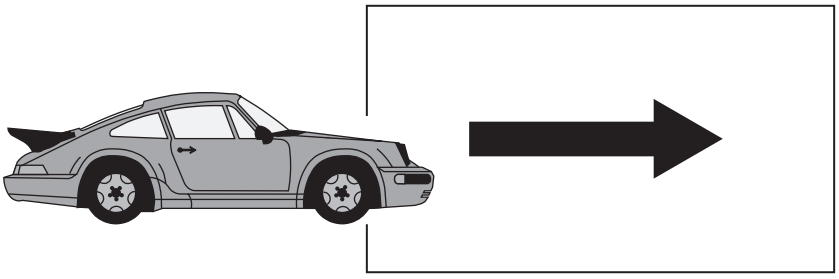
*(a)* Describe why animators create a *Storyboard.* [2]

.....

.....

.....

*(b)* An animator has been asked to produce an animation that shows a car moving from one side of the screen to the other.



Name **two** suitable *animation techniques* that the animator could use. Explain *how* these animation techniques would be used to produce the car animation shown above.

[2 × 3]

**Animation Technique 1:** .....

.....

.....

.....

.....

.....

.....

**Animation Technique 2:** .....

.....

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**7.** A computer database is used to store details on all the cars a garage has for sale. Part of the database is shown below.

| Registration Number | Type | Colour | Engine | Fuel | Price (£) |
|---|---|---|---|---|---|
| CT57 WPD | Estate | B | 2500 | D | 6,000 |
| DR01 GJA | 4 × 4 | G | 3500 | D | 23,995 |
| AB51 CKB | Saloon | B | 3000 | P | 32,565 |
| KD55 NKT | Estate | R | 1600 | P | 8,000 |
| AC09 UDR | Hatchback | S | 2000 | D | 9,654 |
| MY02 MDT | 4 × 4 | B | 3000 | D | 25,895 |
| CP51 ANC | Hatchback | O | 2200 | P | 14,995 |

*(a)* Give **one** problem that could occur with encoding colours, as in the *Colour* field above. Suggest a suitable solution to the problem. [2]

.....

.....

.....

.....



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*(b)* One advantage of using ICT to store data is that less storage space is needed. For example, no filing cabinets are required.

Describe *other advantages* **and** *disadvantages* of keeping data on a computer system. [4]



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**8.** *(a)* **Tick (✓)** the correct boxes to show whether **each** of the following statements about an *Operating System* is **True** or **False**. [3]

| STATEMENT | TRUE | FALSE |
|---|---|---|
| An operating system is a type of hardware | 1 | 2 |
| An operating system ensures that data is written to the backing store correctly | 3 | 4 |
| A computer will not work unless it has an operating system. | 5 | 6 |

*(b)* For **each** of the following examples of use, state the most suitable processing method. *The first one has been done for you*. [2]

| Example of use | Processing method |
|---|---|
| Controlling a nuclear reactor | Real-time Control Processing |
| Booking theatre tickets | |
| Processing electricity meter readings to produce a bill | |



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**9.** Online banking is becoming popular.

*(a)* State **two** *services* offered to online banking customers. [2]

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

.....

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

.....

*(b)* Give **two** *benefits* of online banking to customers. [2]

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

.....

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

.....

*(c)* Give **one** *concern* (worry) that customers may have with the use of online banking. [1]

.....

.....

.....



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

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

.....

.....

*(b)* Give **two** *advantages* of teleworking for the *Employee.* [2]

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

.....

.....

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

.....

.....

*(c)* Give **two** *advantages* of teleworking for the *Employer.* [2]

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

.....

.....

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

.....

.....

*(d)* Give **one** *advantage* of teleworking to *Society.* [1]

.....

.....

.....



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**11. Tick (✓)** to show your chosen business application from the list below.

| | **Tick (✓)** |
|---|---|
| Robotics | |
| Expert systems | |

*(a)* Give **one** specific *use of ICT* in your chosen application. [1]

.....

.....

.....

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

.....

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

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

.....

.....

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

.....

.....

*(d)* Give **one** *disadvantage* of using ICT in your chosen application. [1]

.....

.....

.....



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**12.** *'The misuse of ICT has led to an increase in crime and socially related offences.'*

Identify **two** such crimes or offences. Illustrate each with a suitable example. Outline the *different* consequences for victims, organisations or society. Describe, in detail, *different* ways in which they can be stopped or reduced. [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.<br>Write the question number(s) in the left-hand margin. |
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