

FOR OFFICIAL USE

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**0560/402**



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KU PS TOTAL

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NATIONAL  
QUALIFICATIONS  
2010

MONDAY, 10 MAY  
10.20AM – 11.35AM

COMPUTING STUDIES  
STANDARD GRADE  
General Level

Fill in these boxes and read what is printed below.

Full name of centre

Town

Forename(s)

Surname

Date of birth

Day Month Year

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Scottish candidate number

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Number of seat

Read each question carefully.

Attempt **all** questions.

Write your answers in the space provided on the question paper.

Write as neatly as possible.

Use **blue** or **black ink**.

Answer in sentences wherever possible.

Before leaving the examination room you must give this book to the Invigilator. If you do not,



1. Matthew has just started college.



- (a) He wants to buy a computer that he could use when he is in the lecture hall taking notes.

- (i) State the **type** of computer he should buy.

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1

- (ii) State **one** reason for your choice of computer.

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1

- (b) No matter where he is in the college grounds, Matthew can connect to the *Internet* using his new computer.

State how his laptop is able to do this.

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1

- (c) While using the word processor to write an essay he mistakenly used the same word twice.

“... . . . the the . . . . .”

Name the feature of the word processing program that would highlight this error.

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1

**1. (continued)**

- (d) The essay is 12 pages long. Throughout the essay he misspelled MacDonald as McDonald.

- (i) Name the feature of the word processing package that could be used to correct this in a single operation.

1

- (ii) Describe how he would use this feature to correct the names.

2

- (e) Matthew only wants to print the last three pages of his essay.  
State how he could do this.

2

- (f) One of the other programs Matthew makes use of is a spreadsheet. The word processor and spreadsheet have a *common HCI*.

State **one** reason why a “common HCI” is useful.

1

**[Turn over]**

2. Colour Metals produce special metal work for house builders.



They pay their workers a basic weekly wage plus an overtime amount if they work any extra hours for the week. Part of their spreadsheet used to work out the weekly wage is shown below.

|   | A          | B          | C               | D                        | E              |
|---|------------|------------|-----------------|--------------------------|----------------|
| 1 | Name       | Basic Wage | Overtime worked | Hourly Rate for overtime | This Weeks Pay |
| 2 |            |            |                 |                          |                |
| 3 | Black, D   | 200        | 5               | £17·00                   | £285·00        |
| 4 | Hussein, D | 176        | 12              | £14·00                   | £344·00        |
| 5 | Smith, F   | 150        | 10              | £12·00                   | £270·00        |
| 6 | Wong, L    | 220        | 15              | £19·50                   | £512·50        |
| 7 |            |            |                 |                          |                |
| 8 |            |            |                 | Total                    | £1,411·50      |

- (a) A formula is used in cell E3 to work out the wage.

Complete the formula.

= \_\_\_\_\_ + ( \_\_\_\_\_ \* \_\_\_\_\_ )

2

- (b) Cell E8 also contains a formula.

Complete the formula.

= \_\_\_\_\_ ( \_\_\_\_\_ : \_\_\_\_\_ )

2

- (c) Describe how you would change the cells in column B to make them look like column D.

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2

**2. (continued)**

- (d) A new employee has joined the company and their information has to be added to the spreadsheet shown on *Page four*.

Explain how you would add “Harrison, J” to the sheet in the correct location.

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- (e) A new assistant in the office has been asked to keep the spreadsheet up to date. They use an *online tutorial*.

State why they would use an online tutorial.

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- (f) State how the assistant could display the information in the table in a more easily understood format.

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- (g) The company used a graphics program to design their logo.



Version 1



Version 2

State **two** features of the graphics program used to change Version 1 into Version 2.

1 

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2 

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[Turn over



- State **two** reasons why robots are more efficient than human workers.

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3. (continued)

- (d) The robots can pick up a chair without damaging it.  
Explain how this can be achieved.




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- (e) When designing the furniture, the company makes use of an **input device** which allows them to create detailed drawings.  
Name this input device.

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[Turn over

4. Carol works for a travel agent and they use a database to store the holiday details.

Examples of the details held on the database are shown below.



| Field name      | Example data                                         |
|-----------------|------------------------------------------------------|
| Country         | Spain, France, USA                                   |
| Type of holiday | All inclusive, bed and breakfast, room only, camping |
| Location        | Orlando, Las Americas, Paris, Amsterdam              |
| Number in party | 12, 3, 1                                             |
| Date            | 12/7/2010                                            |
| Duration        | 7 days, 10 days                                      |

- (a) A family of 3 people would like to go on a 5 day holiday to Spain. They want to stay in a hotel in Barcelona from 21/9/2010.

Complete the following screen to find a list of suitable holidays.

|                 |           |
|-----------------|-----------|
| Country         |           |
| Type of holiday | Hotel     |
| Location        |           |
| Number in party | 3         |
| Date            | 21/9/2010 |
| Duration        |           |

(b) Complete the sentences using some of the words below.

(i) When Carol looks for a country that a family wants to visit, she will \_\_\_\_\_ the database.

(iii) Carol would \_\_\_\_\_ the database to put the locations into alphabetical order.

(c) Carol sends out the final details of the holidays to the family two weeks before their holiday is due to start. She makes use of *standard paragraphs* when creating the letters.

(i) State what a standard paragraph is.

(ii) State **one** advantage to Carol of using standard paragraphs.

(d) The travel agent has a website that customers can use to help find a holiday that suits them. It uses an *expert system* to provide suggestions.

State what is meant by an expert system.

**[Turn over**

5. A shop sells electrical equipment. Sales are stored on a computer.

Each item has a unique numeric code.



- (a) State **two** possible checks that could be carried out on the code to make sure it is valid.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

2

- (b) The shop makes use of both *data* and *information*.

Describe what is meant by:

Data: \_\_\_\_\_

\_\_\_\_\_

Information: \_\_\_\_\_

\_\_\_\_\_

2

- (c) Complete the sentences using some of the words below.

*programmer*      *engineer*      *systems analyst*      *network manager*

- (i) The \_\_\_\_\_ can recommend new software or hardware.

1

- (ii) The \_\_\_\_\_ maintains the computer system.

1

- (iii) The \_\_\_\_\_ maintains user access on the computer network.

1

- (d) When a purchase is made in the shop, customers pay using a card. This is processed by EFT.

Fill in the missing words

Electronic F \_\_\_\_\_ T \_\_\_\_\_

2

**5. (continued)**

(e) Customers are worried that their personal details could be altered or lost.

- (i) State the name given to the process of gaining unauthorised access to information.

\_\_\_\_\_

**1**

- (ii) State **two** methods that could be used to protect data stored on computers.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

**2**

**[Turn over**

6. A new fire safety system, including software and hardware, is being installed.

(a) Programs for the system are written in a *high level language*.

They need to be *translated* before use.

(i) State **two** features of a high level language

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

(ii) The programs are translated into *machine code*.

State what is meant by machine code.

\_\_\_\_\_

\_\_\_\_\_

(b) The new fire safety system will make use of either a *real-time* or an *interactive system*.

(i) State which one would be used.

\_\_\_\_\_

(ii) Give **one** reason for your choice in part (i).

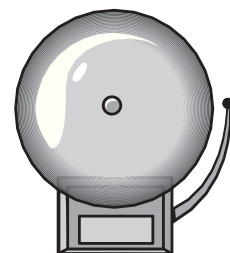
\_\_\_\_\_

\_\_\_\_\_

(c) The program for the new fire safety system could be stored on a DVD-RW.

Fill in the missing words.

D\_\_\_\_\_ V\_\_\_\_\_ Disk Re-Writeable.



2

1

1

1

2

| KU | PS |
|----|----|
|    |    |
| 1  |    |
| 1  |    |
| 2  |    |

**6. (continued)**

(d) Memory can be measured in *megabytes*.

(i) State the number of *kilobytes* that make up a megabyte.

\_\_\_\_\_

(ii) State the number of *bits* that make up a *byte*.

\_\_\_\_\_

(e) What does the word *bit* stand for?

\_\_\_\_\_

**[Turn over**

- (a) They want to buy a printer. They have to take certain features into account.  
Tick (✓) **one** feature that is **not** relevant to printers.

|                   |  |
|-------------------|--|
| <b>Resolution</b> |  |
| <b>Pixel size</b> |  |
| <b>Speed</b>      |  |



- Fill in the missing words.

- (ii) Liquid C\_\_\_\_\_ Display

- State **two** possible input devices that could be used with a palmtop.

- (i) State the meaning of the term multimedia.

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- (ii) State a method of getting their photographs into the laptop.

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