G

KU   PS

Total Marks

0560/402

Fill in these boxes and read what is printed below.

Full name of centre

Town

Forename(s)

Surname

Date of birth

Day Month Year   Scottish candidate number   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.

Answer in sentences wherever possible.

Before leaving the examination room you must give this book to the invigilator. If you do not, you may lose all the marks for this paper.

1. The Gibson family are going on holiday to a Scottish island.
They are travelling by car and ferry.

(*a*) The family find out more about the ferry crossing by going *on-line* at
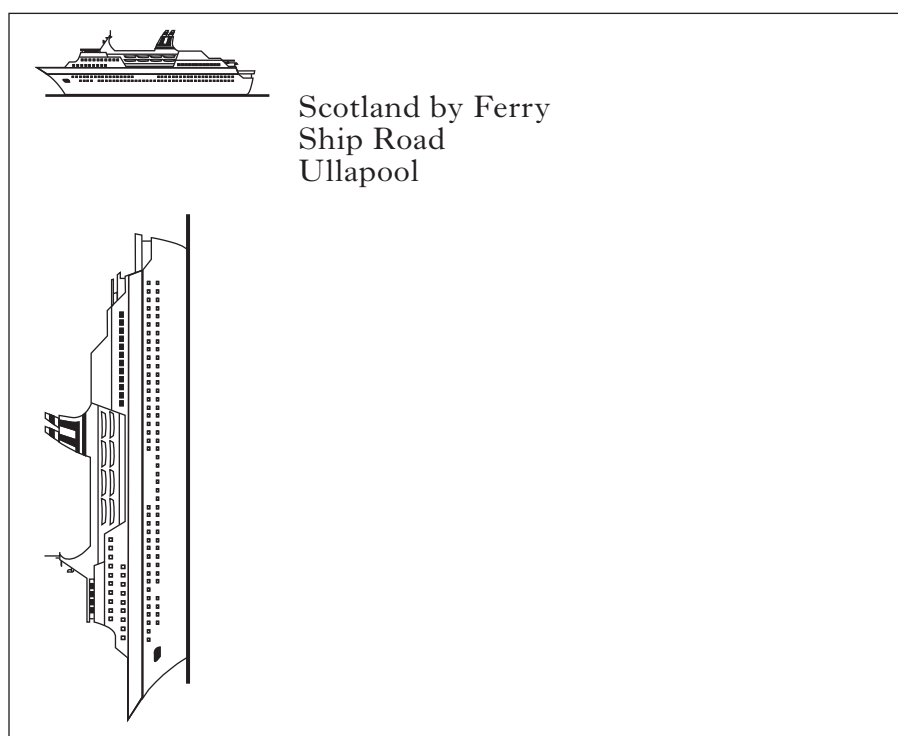www.scotferry.co.uk.

What does the "www" stand for at the beginning of the address?

W _____ W _____ W _____

(*b*) The ferry company sends the Gibsons a letter confirming their booking.
At the bottom of the letter is a *standard paragraph*.

What is a standard paragraph?

_____

_____

_____

(*c*) The company's stationery looks like this:

Scotland by Ferry
Ship Road
Ullapool

State the changes that have been made to the graphic at the top to make it
look like the one at the side.

_____

_____

1. (continued)

(*d*) Throughout the letter, Gibson has been typed as "Gibbson".

What feature of the word processing package could be used to correct this mistake in **one operation**?

_____

(*e*) The ferry company has enclosed details of its crossings.

Journey	Departure	Arrival
Ullapool – Stornoway	0900	1130
Ullapool – Summer Islands	1030	1110

State **two** advantages in using the *table* facility to create this layout.

1 _____

_____

2 _____

_____

[Turn over

2. The Ferry Company keep a spreadsheet for each crossing.

	A	B	C	D	E	F
1	**Ferry Crossings 2007**					
2						
3	**Journey**	**Number of passengers**	**Cost per passenger**	**Number of cars**	**Cost per car**	**Total from passengers and cars**
4	Ullapool to Stornaway	300	£13.00	98	£23.00	£6,154.00
5	Ullapool to Summer Islands	150	£7.50	30	£15.00	£1,575.00
6	Oban to Mull	60	£8.00	52	£20.00	£1,520.00
7						
8						
9	Average number of cars per sailing			60		

(*a*) Cell F4 contains a formula. Part of it is shown below. Complete the formula.

= (_____ * _____) + (_____ * _____)

(*b*) Cell D9 contains a function. Part of it is shown below. Complete the function.

= _____ (_____ : _____)

(*c*) State **two** ways in which cell A3 has been formatted.

1 _____

2 _____

(*d*) What *attribute* has been applied to the numbers in cells C4 to C6?

_____

3. One of the children in the Gibson family gets seasick on ferry journeys. Mrs Gibson notices that her local chemist has an *expert system*, which covers various illnesses including travel sickness.

(*a*)   What is an expert system?

_____

_____

_____

2
1
0

(*b*)   State **one** area, other than medicine, where an expert system could be used and what it could be used for in that **area**.

Area _____

What it would be used for _____

_____

_____

2
0

(*c*)   On board the ferry there is a *multimedia* presentation about the island.

(i)   State **one** reason for using *audio* in a presentation.

_____

_____

1
0

(ii)   A *hyperlink* is used between slides in the presentation.

What is a hyperlink?

_____

_____

1
0

(iii)   On one of the islands it is possible to go white water rafting. The presentation includes this as a *video* clip.

State **one** reason for using a video clip in a presentation rather than a photograph.

_____

_____

1
0

[Turn over

4. (*a*) The ferry company uses a *database* to keep a file of all its customers. For each of the fields below state a suitable *field type*.

The first one has been done for you.

Field Name	Example	Field Type
Name	Harry Gibson	Text
Address	3 Ballater Drive	_____
Age	36	_____
Outward Journey	13/10/07	_____

(*b*) Below is part of a record from the customer file.

Name	Harry Gibson
Customer Code	HG3679
Departure	Ullapool
Destination	Stornoway
Outward Journey	13/10/07
Time	1830 hours
Type of Car	Land Ranger

The ferry company wishes to know how many Land Rangers are travelling from Ullapool to Stornoway on 13/10/07.

Choose **five** words from the list below to complete the paragraph.

Search   *Sort*   *Name*   *Stornoway*   *Ullapool*

Destination   *AND*   *13/10/07*   *OR*

Perform a complex _____ on

fields Departure equals _____

AND _____ equals Stornoway

_____ Outward Journey equals _____

AND Type of Car equals Land Ranger.

4. (continued)

(*c*) The company now wish to put this list in alphabetical order

   • firstly by name

   • and then by type of car.

   Number the steps below to show the correct order.

   ☐   and choose to sort on type of car

   ☐   start a new complex sort

   ☐   choose to sort on customer name

(*d*) When a customer's code is typed in, the computer checks that only six characters have been entered.

   What *type of check* is this?

   _____

(*e*) Only certain employees should have access to the database.

   Describe **two** suitable methods which they could use to control access.

   1 _____

   _____

   2 _____

   _____

(*f*) A passenger is surprised to receive a brochure from a holiday homes company which is based on the island they are travelling to.

   Tick (✓) **one** box which indicates how the holiday homes company got their name and address.

   The passenger wrote to the company   ☐

   The ferry company have sold their customer list   ☐

[Turn over

5. The ferry has *sensors* on its doors which prevents the ferry from sailing if the doors are not sealed.

(*a*) (i) State the type of processing that is being used to control the ferry doors.

_____

(ii) State a reason for this.

_____

_____

(*b*) State a type of sensor which could be used in this situation.

_____

(*c*) The ferry sometimes has to transport cargo. Before loading, the cargo is kept in a warehouse. The warehouse uses automated vehicles which are guided by a light system.

Using **some** of the words below complete the paragraph about a light guidance system.

control　　　　*feedback*　　　　*sensor*　　　　*magnet*　　　　*instructions*

A _____ follows a white line. Should the vehicle move

away from the line _____ causes the computer to send

out _____ which bring it back to the correct position.

(*d*) State **two** advantages of using automated vehicles.

1 _____

_____

2 _____

_____

6. (*a*) Some people are very frightened of sailing. Describe how *virtual reality* could be used to overcome their fears.

_____

_____

_____

_____

2
1
0

(*b*) The shop on board the ferry uses a computer program for stock taking. It is written in a *high level language*.

Tick (✓) **two** boxes which are *common features* of high level languages.

Written in binary ☐

English like ☐

Portable ☐

Cannot be edited ☐

2
1
0

(*c*) Explain why it is necessary for high level languages to be translated.

_____

_____

_____

1
0

(*d*) How are numbers represented in a computer?

Tick (✓) **one** box.

ASCII ☐

Pixels ☐

Binary ☐

1
0

[Turn over

6. **(continued)**

(*e*)   The shop saves information onto *backing storage*. Put the following types
of backing storage into order, according to their *capacity*. One box has
been completed for you.

Use **1** for the **smallest** and **4** for the **largest.**

USB Flash Drive | 2 |

DVD Rewriteable | |

Hard Drive | |

CD Rewritable | |

(*f*)   The shop needs to make printouts of its stock taking. The printouts will
include figures which must be able to be read clearly.

(i)   Suggest a suitable type of printer.

_____

(ii)   State **one** reason for your answer.

_____

_____

(*g*)   Some passengers like to have a picture of themselves put onto a sheet of
paper which shows the ferry and a map of the island.

Number the steps below from 1 to 4 to show the correct order of how this
could be achieved. The **first step** should be **numbered 1.**

Import photograph to desk top publishing package | |

Print document | |

Take photograph of customer with digital camera | |

Save document | |

6. **(continued)**

(*h*) Within the shop there is a *monitor* which displays live pictures, with sound, of what is happening on the captain's bridge.

State **two** pieces of hardware, other than a monitor, which could be used to display the live pictures.

1 _____

2 _____

(*i*) The manageress of the shop often uses a *laptop* computer.

State the type of monitor a laptop would have.

_____

(*j*) The manageress uses her laptop to create adverts for the shop. Complete the following sentences using the words provided.

data   *program*

The manageress uses a desk top publishing package.

This is a _____ file.

With this she creates an advert. This is a _____ file.

[Turn over

7. (*a*) Working out how many cars could travel on the ferry used to be done manually. Now a computer program calculates it.

Who would have examined the old system to see if computerisation was possible? Tick (✓) **one** box.

Programmer ☐

Systems Analyst ☐

Engineer ☐

Network Manager ☐

(*b*) Use **some** of the following words to complete the sentences below.

programmer   *engineers*   *network manager*   *systems analyst*

When computers were first installed at the ferry company's head office

they were installed by _____ .

A _____ was employed to write a program which

calculates the weight on board the ferry.

There are now so many computers linked together it is necessary to

employ a _____ to allocate usernames.

(*c*) (i) Some customers pay for their ferry crossing using cheques which have *MICR (Magnetic Ink Character Recognition)* data printed on them.

State **one** advantage of MICR

_____

_____

(ii) Others use *EFT* to pay for their fare.

What do the initials EFT stand for?

E _____ F_____ T _____

8. (*a*) The following statements refer to *broadband* or *dial-up* connections.

Choose the appropriate type of connection for each statement.

The first one has been done for you.

	Broadband	**Dial-up**
1 Provides faster speed of access to the Internet.	✓	
2 This type of connection is always on.		
3 This type of connection can be paid for by the minute.		
4 Telephone calls can be made and received at the same time as being connected to the Internet.		

(*b*) What does it mean to be *off-line*?

_____

_____

(*c*) The ferry company sends an *e-mail* to a customer which is written in CAPITAL LETTERS.

Why should they **not** have used capital letters?

_____

_____

(*d*) On board each ferry there is a *wireless Local Area Network*.

State **two** advantages of using wireless technology.

1 _____

_____

2 _____

_____

[*END OF QUESTION PAPER*]

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