

FOR OFFICIAL USE

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
|--|--|--|--|--|--|

Mark

| |
|--|
| |
|--|

NATIONAL QUALIFICATIONS 2015

COMPUTING STUDIES INTERMEDIATE 1

X207/10/01

WEDNESDAY, 6 MAY
9.00 AM – 10.00 AM



Fill in these boxes and read what is printed below.

Full name of centre

| |
|--|
| |
|--|

Town

| |
|--|
| |
|--|

Forename(s)

| |
|--|
| |
|--|

Surname

| |
|--|
| |
|--|

Number of seat

| |
|--|
| |
|--|

Date of birth

Day

| | |
|--|--|
| | |
|--|--|

Month

| | |
|--|--|
| | |
|--|--|

Year

| | |
|--|--|
| | |
|--|--|

Scottish candidate number

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

Attempt Section I and **one** Part of Section II.

Section I – Attempt all questions.

Section II – This section has two parts:

Part A – Computers and the Internet

Part B – Information and the Internet

Choose **one** part and answer **all** the questions in that part.

Read all questions carefully.

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

Write as neatly as possible.

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

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.



SECTION 1

DO NOT
WRITE
IN THIS
MARGIN

Attempt ALL questions in this section

1. Saltire Art Club is planning to auction some of its watercolour paintings for charity. Jeremy produces a leaflet to advertise the auction using a new application package.



- (a) What application would be most suited to creating a leaflet where text and graphics are positioned on the page?

Tick **one** box.

☐

Word processor

☐

Database

☐

Desktop publishing

☐

Spreadsheet

1

- (b) Jeremy has never used this package before. He used both online tutorials and online help when he created the leaflet.

State what each of these would be used for.

Online Tutorial _____

Online Help _____

2



1. (continued)

DO NOT
WRITE
IN THIS
MARGIN

- (c) (i) State the input device that Jeremy used to capture the club's watercolour paintings for the leaflet.

Tick **one** box.

☐

Printer

☐

Mouse

☐

Graphics Tablet

☐

Digital Camera

1

- (ii) State a file **type** that could be used to store the captured graphics.

1

- (iii) The graphic files were originally 2 Mb each but were changed to 1 Mb without editing the graphic.

State what has been done to each graphic file to reduce its file size.

1

[Turn over

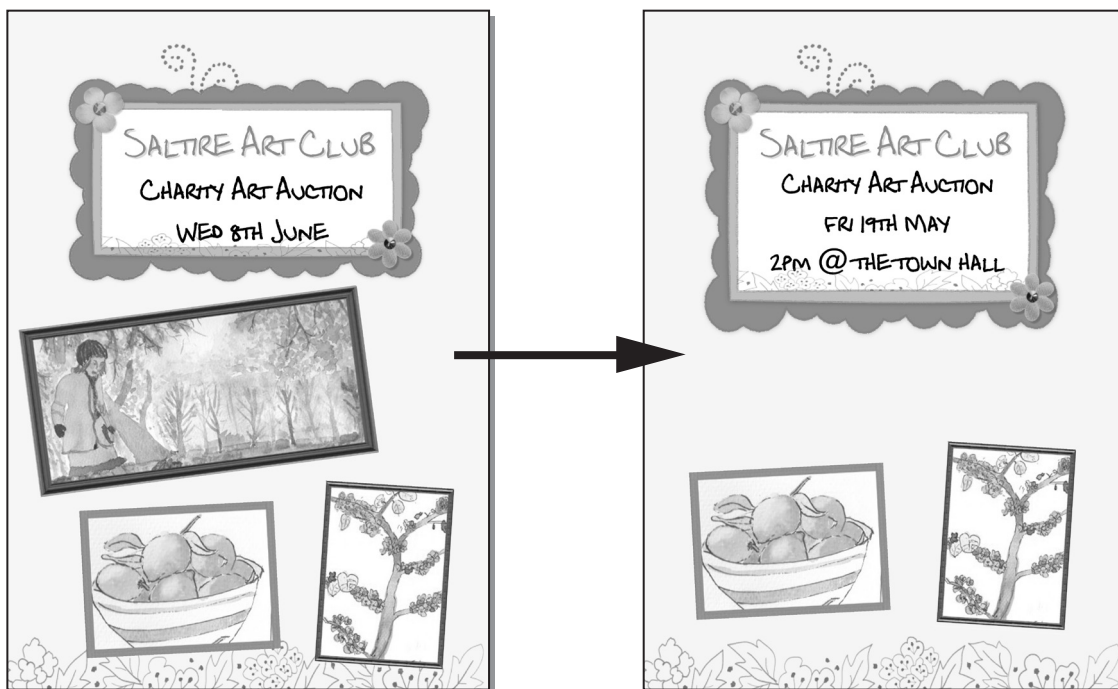


* X 2 0 7 1 0 0 1 0 3 *

1. (continued)

DO NOT
WRITE
IN THIS
MARGIN

(d) Jeremy edited the leaflet to create a new version.



Complete the sentences using the words below.

Inserted

Amended

Deleted

The date of the auction has been _____.

The time and place of the auction have been _____.

One of the art club graphics has been _____.

2



1. (continued)

DO NOT
WRITE
IN THIS
MARGIN

- (e) The art club creates a presentation to display at the auction. The presentation contains several high quality videos of the artwork and the artists.

- (i) State a backing storage device which would be suitable for storing large video files.

1

- (ii) A computer is set up to display the presentation while people view the artwork.

Name the output device required to hear the presentation's sound.

1

- (f) When the leaflet and presentation were completed, Jeremy chose to backup his files.

State **one** reason why Jeremy would backup his files.

1

[Turn over



* X 2 0 7 1 0 0 1 0 5 *

2. Top Pound Finance runs a bonus scheme for its employees. The bonuses paid to each employee are stored in a spreadsheet.

DO NOT
WRITE
IN THIS
MARGIN

| | A | B | C |
|----|---------------------------|--------------|---|
| 1 | Sales Bonus Scheme | | |
| 2 | | | |
| 3 | Name | Bonus | |
| 4 | Mairi | 300 | |
| 5 | Sheena | 200 | |
| 6 | Steven | 150 | |
| 7 | Margaret | 400 | |
| 8 | Rosemary | 320 | |
| 9 | Maureen | 350 | |
| 10 | Arthur | 250 | |
| 11 | | | |
| 12 | Bonus Total | 1,970 | |
| 13 | Average Bonus | 281 | |
| 14 | | | |

- (a) The above information could have been typed into a word processor. State **one** advantage of using a spreadsheet to store the information.

1

- (b) Using a **function**, write down the formula used in cell B13 to calculate the average bonus.

2



* X 2 0 7 1 0 0 1 0 6 *

2. (continued)

DO NOT
WRITE
IN THIS
MARGIN

- (c) The cell attributes of the bonus column were changed as shown below.

| | A | B | C |
|----|---------------------------|--------------|---|
| 1 | Sales Bonus Scheme | | |
| 2 | | | |
| 3 | Name | Bonus | |
| 4 | Mairi | £300.00 | |
| 5 | Sheena | £200.00 | |
| 6 | Steven | £150.00 | |
| 7 | Margaret | £400.00 | |
| 8 | Rosemary | £320.00 | |
| 9 | Maureen | £350.00 | |
| 10 | Arthur | £250.00 | |
| 11 | | | |
| 12 | Bonus Total | £1,970.00 | |
| 13 | Average Bonus | £281.43 | |
| 14 | | | |

State how the cell attributes have been changed.

1

- (d) State what should be done to make the heading, “Sales Bonus Scheme”, fit in Cell A1, without changing the text size or font.

1

[Turn over

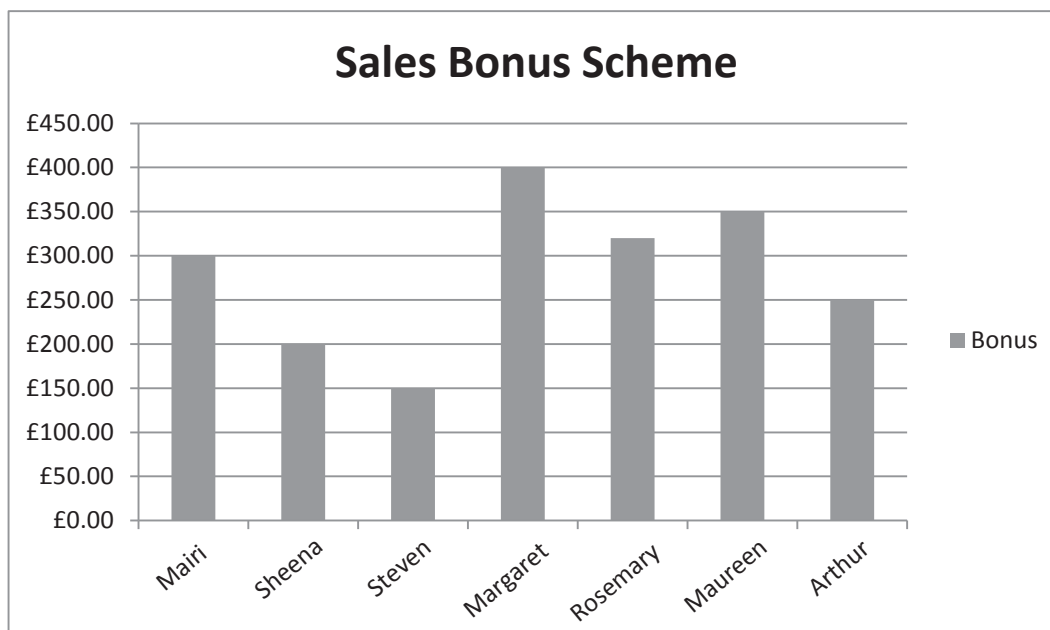


* X 2 0 7 1 0 0 1 0 7 *

2. (continued)

DO NOT
WRITE
IN THIS
MARGIN

- (e) Top Pound Finance create a graphic from the information in the spreadsheet.



- (i) What is the correct term for a spreadsheet graphic like the one shown above?

Tick **one** box.

☐

Chart

☐

Group

☐

Pie

☐

Paint

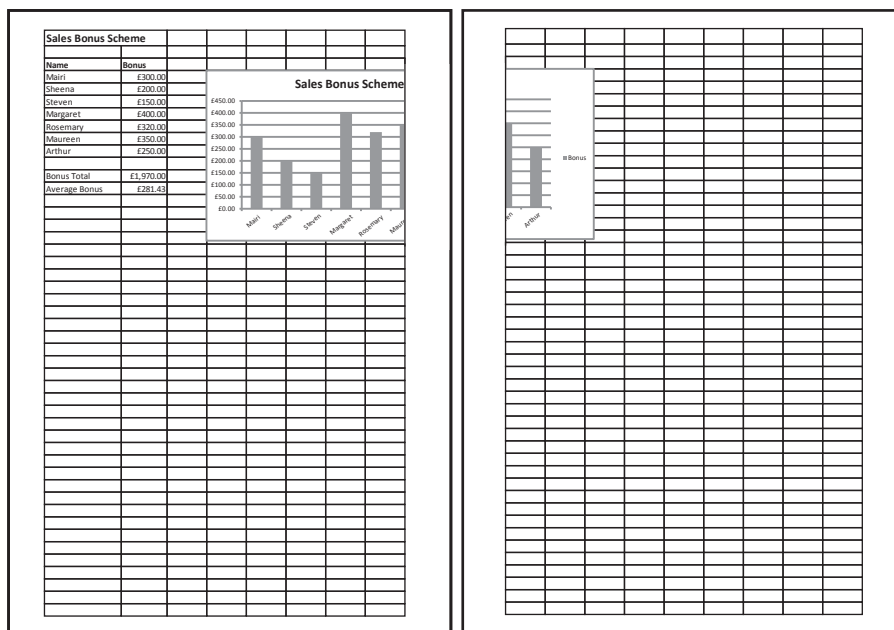
1



2. (e) (continued)

DO NOT
WRITE
IN THIS
MARGIN

(ii) When printed, the graphic is split over two pages.



Top Pound Finance do not wish to make any changes to the size or layout of the spreadsheet information or the graphic.

How could the spreadsheet and the graphic be printed on one page?

Tick **one** box.

☐

Change the page orientation to portrait

☐

Increase the size of the page margins

☐

Add a header and footer to the page

☐

Change the page orientation to landscape

1

[Turn over



* X 2 0 7 1 0 0 1 0 9 *

3. Barak is preparing to do a talk to his English class. To accompany his talk he creates a slide show.

DO NOT
WRITE
IN THIS
MARGIN

He starts by creating a basic layout for all his slides.



- (a) What is the above basic layout an example of?

Tick **one** box.

☐

Wizard

☐

Template

☐

Background

☐

Toolbox

1

- (b) Barak uses voice recognition to add text to his slides.

As well as a computer system, state what hardware is required for voice recognition.

1

- (c) State the text justification Barak used on his footer as shown below.



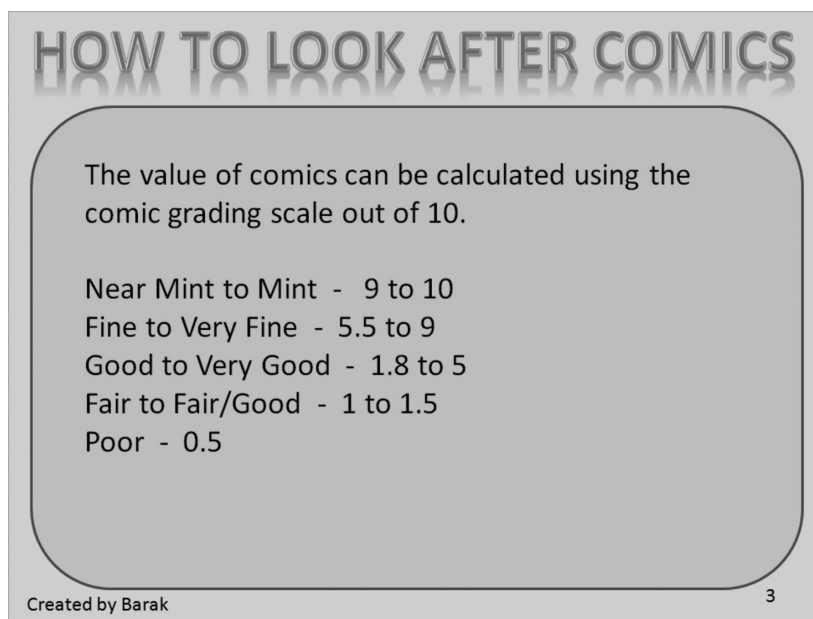
1



3. (continued)

DO NOT
WRITE
IN THIS
MARGIN

- (d) One of Barak's slides has a list.



State a text facility that Barak could use to make the list stand out.

1

- (e) Barak has added an animation to his slideshow that causes each slide to curl away, revealing the next slide.



Name the feature of presentation software used to add this effect.

1

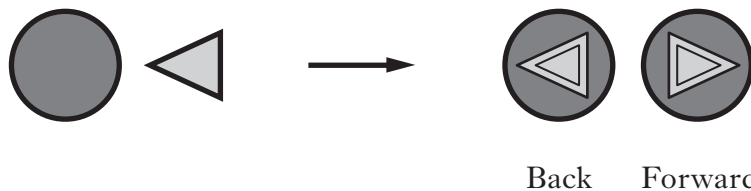


3. (continued)

DO NOT
WRITE
IN THIS
MARGIN

- (f) Barak uses a graphics package to draw a forward and back button for his slide show.

The buttons are drawn using shapes.



- (i) State the **type** of graphics package that was used to draw the buttons.

1

- (ii) The ellipse and the triangle on the back button were grouped together.

Explain why shapes are grouped after they have been drawn.

1

- (iii) Barak used the back button graphic to produce the forward button.

What operations did Barak carry out on the back button to produce the forward button?

Tick **one** box.

☐

Duplicate and flip

☐

Duplicate and fill

☐

Cut and rotate

☐

Flip and rotate

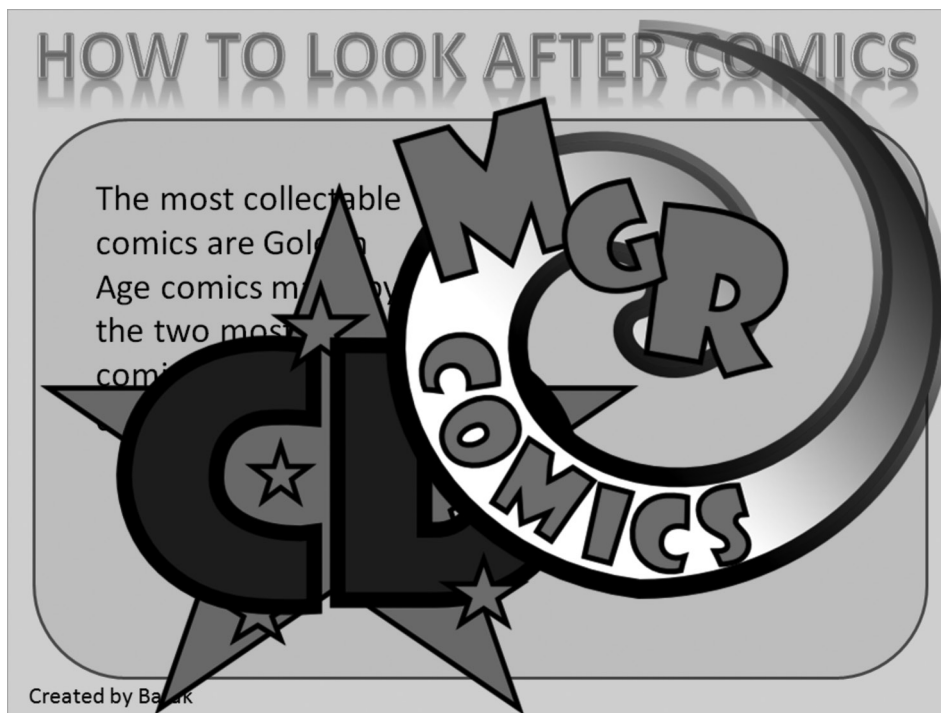
1



3. (continued)

DO NOT
WRITE
IN THIS
MARGIN

- (g) Barak adds two graphics to one of his slides.



The graphics are too large to fit on the slide.

State the operation that should be carried out on the graphics to make them fit alongside the text.

1

- (h) Barak saves his slide show onto a very small, portable storage device capable of storing 16 Gb of data.

- (i) State a **type** of backing storage device Barak could have used.

1

- (ii) State **two** items of information that must be entered into the "save as" window when a file is saved.

1 _____

2 _____

2

[Turn over



3. (continued)

DO NOT
WRITE
IN THIS
MARGIN

- (i) Barak tests that his slideshow works on the school's computer. He notices that the images on the monitor are not as good as at home.

What computer component should the school upgrade to improve the images on the monitor?

Tick **one** box.

☐

Graphics Tablet

☐

Graphics Card

☐

Sound Card

☐

Processor

1

- (j) One of Barak's classmates says that he likes how Barak had added a drum roll when each new slide appears.

Give another example of how sound could be used in Barak's slideshow.

1



* X 2 0 7 1 0 0 1 1 4 *

4. Skye is researching the world's largest cities. She downloads a database from the Internet.

DO NOT
WRITE
IN THIS
MARGIN

- (a) Where in the computer system is the database stored while Skye is using it?

1

- (b) A record from the database is shown below.

| | |
|---------------------------------|-------------------------|
| City | Mexico City |
| Country | Mexico |
| Population | 18,430,000 |
| World Ranking | 8 th largest |
| Size (square kilometres) | 2137 |

What **type** of field is the Country field?

1

- (c) Skye organises the database as shown below.

| City | Country | Population | World Ranking | Size (sq km) |
|-------------|----------------|-------------------|-------------------------|---------------------|
| New York | United States | 20,090,000 | 3 rd largest | 11,264 |
| Tokyo | Japan | 34,400,000 | 1 st largest | 7,835 |
| Jakarta | Indonesia | 21,800,000 | 2 nd largest | 2,720 |
| Sao Paulo | Brazil | 19,140,000 | 7 th largest | 2,590 |
| Mexico City | Mexico | 18,430,000 | 8 th largest | 2,137 |
| Seoul | South Korea | 20,010,000 | 4 th largest | 1,943 |
| Manila | Philippines | 19,550,000 | 5 th largest | 1,425 |
| Mumbai | India | 19,530,000 | 6 th largest | 777 |

How has the database been organised?

Tick **one** box.

☐

Skye has searched on the Country field

☐

Skye has sorted on the World Ranking field in ascending order

☐

Skye has searched on the City field

☐

Skye has sorted on the Size field in descending order

1



* X 2 0 7 1 0 0 1 1 5 *

4. (continued)

DO NOT
WRITE
IN THIS
MARGIN

(d) Skye adds two new fields to the database.

- (i) The first field calculates how many people stay in a square kilometre of each city.

Explain why a calculated field is different from other fields in a database.

1

- (ii) The second new field contains a map of each city centre.

State the **type** of field that could be used to store a map.

1

(e) Skye spell checks the information in the database. She finds that the database highlights the names of the cities as incorrect.

Explain why a spell checker sometimes highlights words that are correctly spelt.

1

(f) The database application Skye is using requires a 2.3 GHz processor and 64 Mb of RAM to run.

- (i) Explain what the value 2.3 GHz tells you about the processor.

1

- (ii) Write the units below in the correct order from smallest to largest.

Mb Gb Kb bytes

1

[END OF SECTION I]



SECTION II

There are two parts to this section.

Attempt **ONE** part only.

Tick the part that you intend to attempt.

Computers and the Internet

☐

Information and the Internet

☐

[Turn over



* X 2 0 7 1 0 0 1 1 7 *

Part A — Computers and the Internet

DO NOT
WRITE
IN THIS
MARGIN

5. Arrow Print is an Internet based printing firm that prints mugs, tee shirts, calendars and posters using digital photographs.



- (a) To use the site customers have to create a username and password before they can log in.

- (i) Explain why people need to log in to e-commerce websites.

1

- (ii) Which of the following would make a strong password?

Tick **one** box.

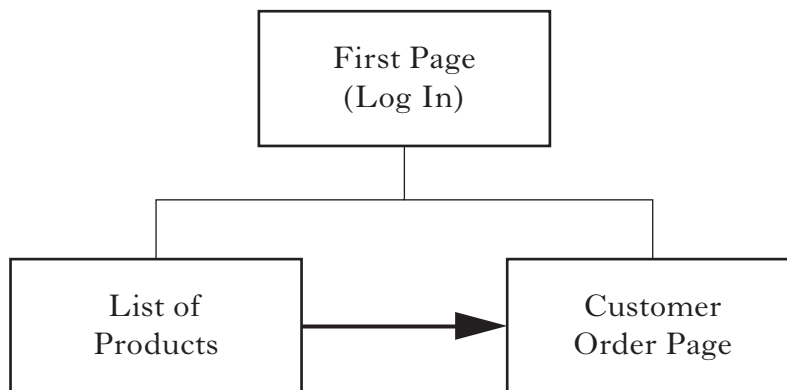
- ☐ Your favourite football team
- ☐ Name of your pet
- ☐ Random letters and numbers
- ☐ ABCD

1



5. (continued)

- (b) Circle, on the layout below, which of the boxes represents the home page.



1

- (c) When customers want to order they click on the name of the product and the Customer Order page opens up.



State the name of this feature of web pages.

1

[Turn over



5. (continued)

(d) Arrow Print would like to create a new website. The web designer tells them that he follows the software development process.

(i) Name the first **two** stages in the software development process.

Stage 1 _____

Stage 2 _____

2

(ii) State **one** question that should be asked during the evaluation stage.

1



* X 2 0 7 1 0 0 1 2 0 *

Part A — Computers and the Internet (continued)

DO NOT
WRITE
IN THIS
MARGIN

6. Allan runs a dog breeding business. He advertises his business on the Internet.

- (a) To identify the dogs for breeding, he asks owners to e-mail a photograph of their dog. If an owner only has a printed photograph of their dog, explain how they would capture it.



1

- (b) One of the customers lives in a remote location. She uses a dial-up connection for her Internet access.

- (i) When she tries to e-mail an attachment to Allan it takes an hour to send. State another disadvantage of a dial-up connection.

1

- (ii) Suggest a suitable technology to connect to the Internet using broadband in a remote location.


1

[Turn over



6. (continued)

- (c) Allan sometimes needs to edit the photographs using a graphics package. He compares two packages to the specification of his laptop.

| | |
|--|---|
| <p>Laptop Sonic 15 (4·16 GHz) Processor 2 Tb Hard Disk (2 Gb free) Keyboard Wireless mouse 22" TFT Screen 8 Gb RAM Reid OS 14</p>  | <p>Package 1 Shawfair Graphics 2·6 GHz Processor 5 Gb available Hard Disk 5 Gb RAM Reid OS 15</p> |
| | <p>Package 2 Gonk Graphics 1·6 GHz Processor 1 Gb available Hard Disk 25 Mb RAM Reid OS 14</p> |

- (i) State which of the graphics packages he should **not** buy. Give two reasons for your answer.

Package _____

Reason 1 _____

Reason 2 _____

2

- (ii) Reid OS 14 is the operating system of the laptop. What type of software is an operating system?

Tick **one** box.

☐

Application software

☐

Anti-virus software

☐

System software

☐

Utility software

1



Part A — Computers and the Internet (continued)

DO NOT
WRITE
IN THIS
MARGIN

6. (continued)

- (d) (i) Laptop computers have a battery in addition to mains power.
Explain why a laptop requires a battery.

1

- (ii) Name a pointing device built in to a laptop.

1

[Turn over



* X 2 0 7 1 0 0 1 2 3 *

Part A — Computers and the Internet (continued)

DO NOT
WRITE
IN THIS
MARGIN

7. Danuta wants to use the Internet to do her homework. She finds that her Internet connection is not working. She telephones the helpline of her Internet service provider.

(a) (i) Explain what is meant by an Internet service provider.

1

(ii) State why the cost of using this helpline is a running cost.

1

(b) The helpline suggests that her modem might not be working.
State the purpose of a modem.

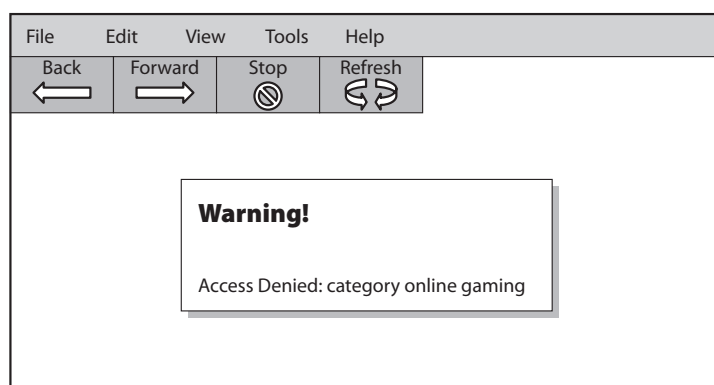
1

(c) Danuta walks to a cafe which has Internet access and uses her palmtop computer to access the Internet.

(i) Explain why Danuta would choose to take her palmtop rather than her laptop to the cafe.

1

(ii) She finds that some websites do not load up and the following message is seen.



Explain why she is unable to access some websites.

1

[END OF PART A—COMPUTERS AND THE INTERNET]



Part B — Information and the Internet

DO NOT
WRITE
IN THIS
MARGIN

5. Jayne wants to be able to e-mail customers and work on database files while away on business.

- (a) Which hardware device does a computer require to access the Internet?

Tick **one** box.

☐

Modem

☐

Hard disk

☐

Monitor

☐

Sound card

1

- (b) Jayne's company provides her with everything required to access the Internet.

- (i) State which are *running costs* and which are *initial costs* for the company.

| Item | Type of Cost |
|---|--------------|
| Upgrade the computer hardware | Running cost |
| ISP subscription | |
| Monthly payment for anti-virus software | |
| Purchase of communication software | |

2

- (ii) State the **type** of communication software that her computer will require to allow her to access web pages.

1

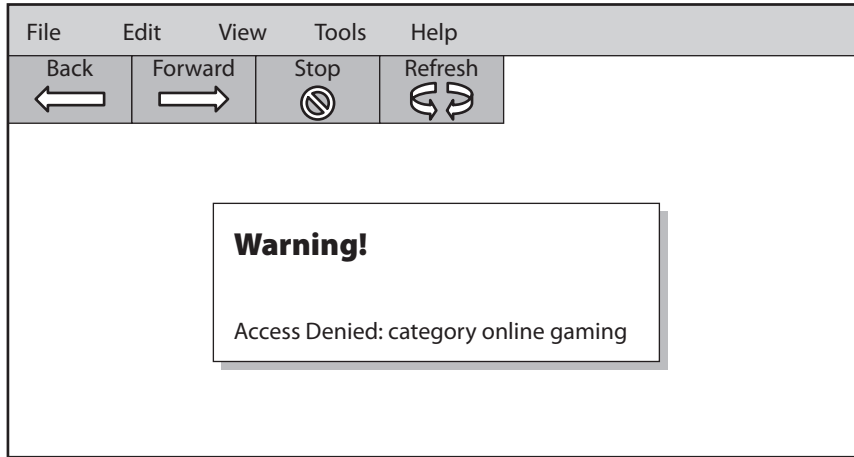
[Turn over



* X 2 0 7 1 0 0 1 2 5 *

5. (continued)

- (c) While at work Jayne tries to play an online game and the following message is displayed.



Explain why Jayne is unable to access the online game.

1

- (d) While away on business, Jayne left her laptop running, with a customer database open, while her hotel room was being cleaned.

Explain why she might have broken the Data Protection Act.

1



Part B — Information and the Internet (continued)

DO NOT
WRITE
IN THIS
MARGIN

6. Allan runs a dog boarding kennel. He hires Anne a web designer to create a new website for him.



Anne follows the stages of the software development process.

- (a) Write your answers in the table below stating the names of the **two** stages.

| Name of stage | Description |
|---------------|---|
| 1. | Create the pages in web authoring software. |
| 2. | Check that the pages and links look and behave correctly. |

2

- (b) State the **two** documents Anne must create at the *Documentation* stage of the software development process.

2

- (c) Anne also creates a CD-ROM giving customers information on how to prepare their dogs for a stay at the kennels. State **one** advantage to customers of giving the information on CD rather than paper.


1

[Turn over



6. (continued)

- (d) Customers enter a booking into the web page and the data is passed to a database on Allan's computer. Here is an example of a booking.

| | |
|---------------------------|---|
| Booking Number | 701993 |
| Customer Name | Haroon Meti |
| Dog Name | Buster |
| Age of Dog (years) | 6 |
| Date of Arrival | 25/07/2015 |
| Number of Nights | 7 |
| Cost per Night | £10 |
| Cost per Stay | £70 |
| Photograph of Dog |  |

Complete the following sentences using three of the database terms below.

field record file report form

When the customer makes a booking a new _____ is added.

When an arrival date changes Allan edits the Date of Arrival _____.

The complete set of bookings is known as the database _____.

3

- (e) Describe how Allan has used the database to calculate the Cost per Stay.

1



6. (continued)

- (f) Describe how Allan would create a list of bookings for dogs arriving on 01/07/2015 and staying for more than 7 nights.

3

- (g) Allan used to use a paper diary.



- (i) Describe **one** advantage of using a database package to store his customer booking details.

1

- (ii) Here is an example entry from the manual diary that Allan used to keep.

21 Monday

601993

tr.er 10

Cracker

Explain why Allan would see 601993 as information but dog owners would see it as data.

1

[END OF PART B—INFORMATION AND THE INTERNET]

[END OF SECTION II]

[END OF QUESTION PAPER]



ADDITIONAL SPACE FOR ANSWERS

DO NOT
WRITE
IN THIS
MARGIN



* X 2 0 7 1 0 0 1 3 0 *

ADDITIONAL SPACE FOR ANSWERS

DO NOT
WRITE
IN THIS
MARGIN



* X 2 0 7 1 0 0 1 3 1 *

ACKNOWLEDGEMENTS

Part A Question 6 (c) – Yulia Nikulyasha Nikitina/shutterstock.com

Part B Question 6 (g) – Robert_s/shutterstock.com



* X 2 0 7 1 0 0 1 3 2 *