

FOR OFFICIAL USE

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Total

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X207/101

NATIONAL
QUALIFICATIONS
2007

MONDAY, 28 MAY
1.00 PM – 2.00 PM

COMPUTING
STUDIES
INTERMEDIATE 1

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

--

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** of 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.

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 I

Attempt ALL questions in this section.

1. Matthew is using his home computer system to do a geography project on France.

- (a) Matthew uses an input device to hand draw a map of France.

Name an input device Matthew should use to hand draw the map.

1
0

- (b) Matthew needs to enter extra text for his project.

Which of the software applications below would you recommend Matthew uses to enter the text?

Tick **one** box.

☐

Spreadsheet

☐

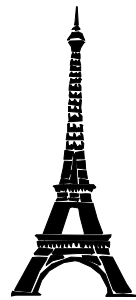
Database

☐

Word Processing

☐

Graphics



1
0

- (c) Matthew wants to insert a graphic of the Eiffel Tower into his project.

Explain how Matthew could do this.

2
1
0

- (d) When Matthew reads over his project he realises that he has mis-typed "Tower" as "Tour" 15 times.

Name a feature of the package that he could use to correct all 15 mistakes at the same time.

1
0

1. (continued)

- (e) Matthew has to complete his project in school.

Which of the following storage devices is the most suitable for taking his project into school?

Tick **one** box.

☐

Hard Drive

☐

CD ROM

☐

USB Flash Drive

☐

DVD ROM

1
0

- (f) Matthew uses the spell check facility but finds that his document still contains errors.

Give an example of an error that would not be found by a spell checker.

1
0

- (g) Matthew does not know how to insert a video clip into his project.

How could Matthew use the features of the application to find out how to do this?

1
0

[Turn over

2. A group of History students are digging on a hillside. Heather decides to use a database to store information about all the objects they dig up.

(a) Fill in the missing *field name* and *field type* in the two blank boxes below.

Field Names	Description of Field	Field Type	Example
Name of Object	Stores the objects name	Text	Clay Jug
Objects location	Stores where the object was dug up	Text	Position 23 on map
	Stores the date when the object was found	Date	07/09/2006
Age	Stores the age of the object in years	Number	1052
Photograph	Stores a photo of the object		Jug.jpg

2
1
0

- (b) What does Heather have to do to the database each time a new object is found?

Tick **one** box.

- ☐ Amend a Record
- ☐ Insert a Record
- ☐ Search Records
- ☐ Sort Records

1
0

- (c) Here is part of a report that Heather has obtained.

Name of Object	Age
Gold Coin	1034
Necklace	1045
Arrowhead	1052
Clay Jug	1055
Cooking Pot	1056

Which of the following did Heather use to produce this report?

Tick **one** box.

- ☐ Search on Age field
- ☐ Sort on Age field
- ☐ Sort on Name of Object field
- ☐ Search on Name of Object field

1
0

2. (continued)

- (d) Heather uses a desktop publishing application to create a magazine about the objects they have dug up.

Roman Artefacts discovered on a hillside!

The exciting discovery of a Roman village has provided 12 History students from the local University with plenty of work over the last six weeks. At the dig, located in the South of Scotland near the border with England, 345 objects have been uncovered, catalogued and photographed.



Most of the objects found were uncovered in the South-West corner of the hillside next to a group of walls believed to be an early Roman bath.

- (i) State **one** text editing facility Heather could use to make the text more attractive.

1
0

- (ii) What device did Heather use to capture the photograph for the magazine?

Tick **one** box.

- ☐ Keyboard
☐ Touchpad
☐ Mouse
☐ Digital Camera

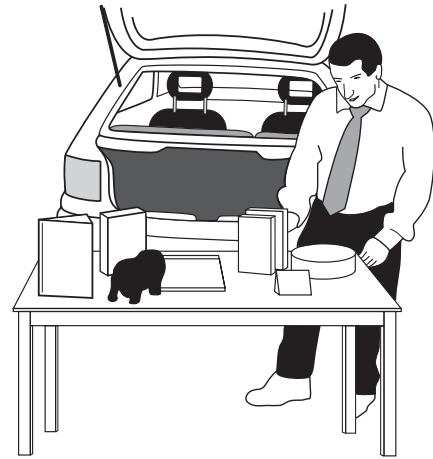
1
0

- (e) When she has finished working on the magazine, what should Heather do to make sure she can make changes at a later date?

1
0

[Turn over

3. A spreadsheet is used to keep track of the people who have booked a space at a car boot sale.



	A	B	C	D
1	Seller's Name	Number of spaces	Cost per space	Cost per person
2	Derek	1	£5.00	£5.00
3	John	1	£5.00	£5.00
4	Kate	2	£4.00	£8.00
5	Gillian	1	£5.00	£5.00
6	Calum	3	£4.00	£12.00
7	Eloise	1	£5.00	£5.00
8	David	2	£4.00	£8.00
9	Brian	3	£4.00	£12.00
10	Susie	1	£5.00	£5.00
11				
12			Total	£65.00

- (a) Different types of data can be entered into a spreadsheet cell.

What type of data is in cell B2?

Tick **one** box.

- ☐ Average
- ☐ Number
- ☐ Text
- ☐ Formula

1
0

- (b) Column C shows the cost per space.

State how cells C2 to C10 have been formatted.

1
0

3. (continued)

- (c) (i) The formula in cell D12 has been entered as
 $=D2+D3+D4+D5+D6+D7+D8+D9+D10$
 Which formula would produce the same result?
 Tick **one** box.

- ☐ $=AVERAGE(D2:D10)$
☐ $=MAX(D2:D10)$
☐ $=SUM(D2:D10)$
☐ $=MIN(D2:D10)$

1
0

- (ii) Cell D2 contains the formula $=B2*C2$.
 A similar formula is also needed in cells D3 to D10.
 Name a feature of the application which should be used to do this.

1
0

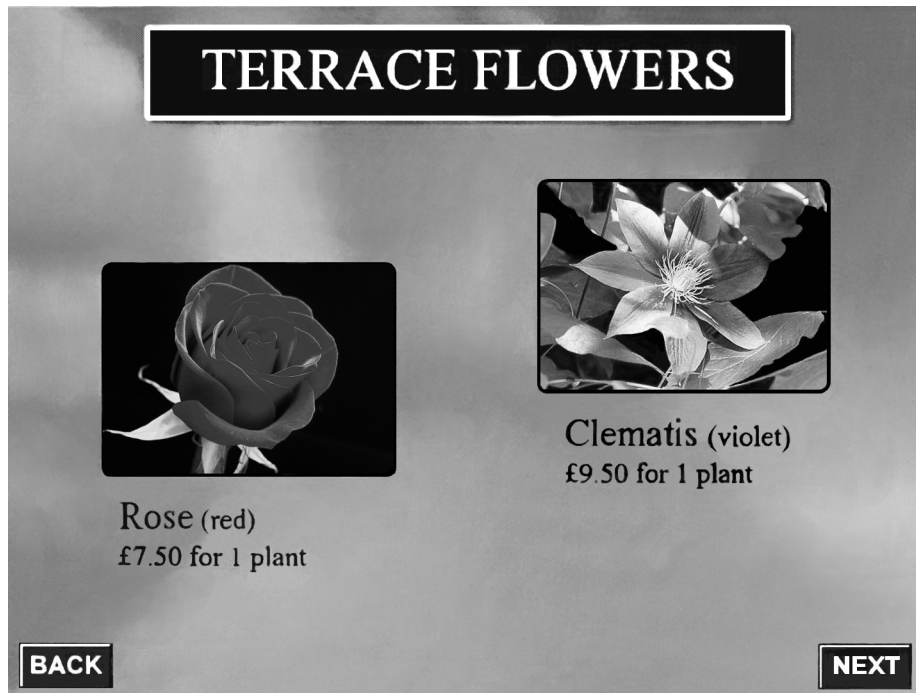
- (d) The information has been shown as a table.
 How else could the spreadsheet application be used to display this information?

1
0

[Turn over]

4. A garden centre has installed a computer system in their shop that allows customers to look through a multimedia presentation about the plants they sell.

Below is one of the pages from the multimedia presentation.



- (a) (i) When the rose graphic is selected a new page is displayed about roses. What is this an example of?

Tick **one** box.

- ☐ Page Formatting
☐ A Hyperlink
☐ A Text Effect
☐ A Transition

1
0

- (ii) When the NEXT button is selected this page dissolves into another page. What is this effect an example of?

Tick **one** box.

- ☐ Page Formatting
☐ A Hyperlink
☐ A Text Effect
☐ A Transition

1
0

4. (continued)

- (b) (i) What type of application would be used to edit the photographs of each flower?

**1
0**

- (ii) When the photograph of the rose was originally taken it filled the whole page.

How could the photograph be made smaller?

**1
0**

- (c) A voice is captured to give more information on each plant.

How could a voice be captured?

**1
0**

[Turn over

5. When making a presentation, various files are used.

- (a) Match the file types below to their description by drawing a line between them.

One has been done for you.

txt	A video file
bmp	A compressed sound file
mp3	A compressed graphic file
gif	A plain text file
avi	An uncompressed graphic file

2
1
0

- (b) An example of a compressed *graphic file type* is gif.

What is meant by file compression?

1
0

- (c) Which of the following devices would be needed to output music?

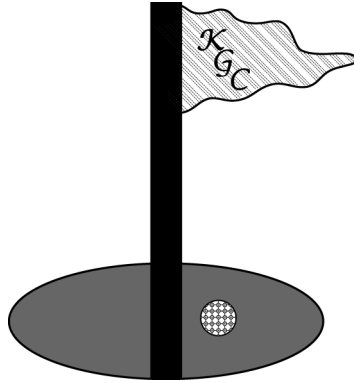
Tick **one** box.

- ☐ Graphics Card
- ☐ Video Card
- ☐ Modem
- ☐ Sound Card

1
0

6. Tamarinda has been asked to create a website for Kirksea Golf Club.

(a) (i) Tamarinda starts by drawing a logo which will be shown on each page.



Which graphics tools have been used to draw the logo objects?

One has been done for you.

The Flag Pole _____

The Flag FreeHand _____

The letters KGC _____

The Golf Ball _____

2
1
0

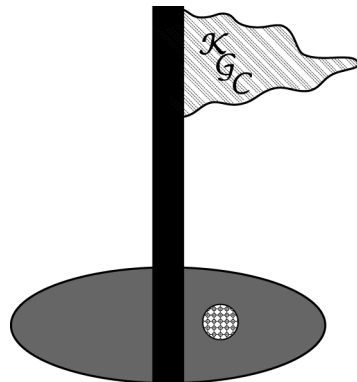
(ii) The logo is created as separate objects. What could be done to make the logo one object?

1
0

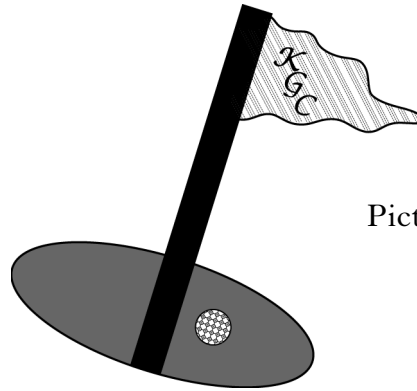
[Turn over

6. (a) (continued)

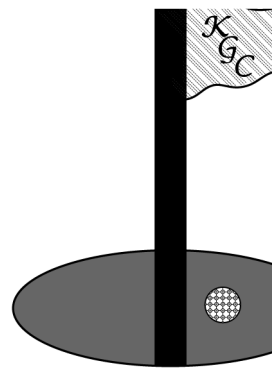
(iii)



Original



Picture A



Picture B

Name the operation which has been performed on the original graphic to give you:

Picture A _____

Name the operation which has been performed on the original graphic to give you:

Picture B _____

2
1
0

- (b) Tamarinda has been given type written articles from old club newsletters. These have to be displayed on the website.

Select the most appropriate method of capturing these articles.

Tick **one** box.

- ☐ A scanner
- ☐ A keyboard
- ☐ A mouse
- ☐ A scanner with OCR software

1
0

6. (continued)

- (c) The Golf Club Captain wants Tamarinda to add old photographs of the clubhouse.

Which item of computer hardware would she need to capture the photographs?

Tick **one** box.

- ☐ Scanner
- ☐ Digital Camera
- ☐ Modem
- ☐ Sound Card

1
0

- (d) Tamarinda wants each page on the site to look similar with the logo shown on each page.

State how Tamarinda could do this.

1
0

- (e) Tamarinda is asked to add a list of competition winners to the website.

Which text editing facility could Tamarinda use to highlight a list of winners?

Tick **one** box.

- ☐ Text Wrapping
- ☐ Bullet Points
- ☐ Page Format
- ☐ Cell Formatting

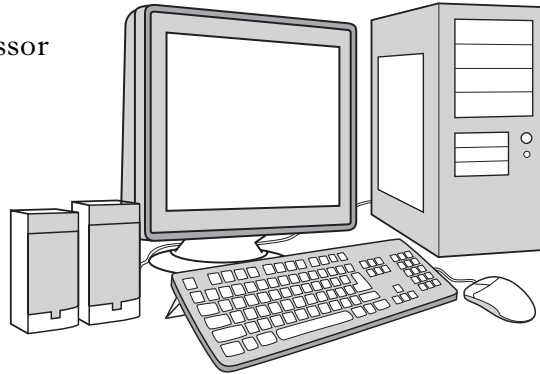
1
0

[Turn over]

6. (continued)

- (f) The golf club has a computer with the following specification.

Sonic 3 (2.8 GHz) processor
240 Gb Hard Disk
15" CRT Monitor
CD-ROM
256 Mb RAM
Cable Modem
Speakers
24 bit Sound Card



- (i) The website she produces will be demonstrated to a large meeting of members before it is launched.

What additional hardware device will Tamarinda require to demonstrate her website?

1
0

- (ii) Speakers are used during the demonstration.

What type of device are speakers?

Tick **one** box.

- ☐ Input Device
☐ Output Device
☐ Processing Device
☐ Storage Device

1
0

[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

Part A—Computers and the Internet

7. Pat delivers packages for ParcelNow.

(a) When he delivers a package, the customer has to sign directly onto the screen of his computer.

(i) What type of computer is Pat using?

Tick **one** box.

☐

Desktop

☐

Server

☐

Palmtop

☐

Mainframe



1
0

(ii) Name the input device used with this type of computer system.

1
0

(b) Pat has to download the stored data he has collected to the ParcelNow network.

Describe what a network is.

1
0

Part A—Computers and the Internet (continued)**7. (continued)**

- (c) Pat is going to open the *data file* into *application software*.

Explain the difference between “application software” and a “data file”.

1
0

- (d) When Pat gets back to the office he has to log on to his computer system.

What **two** items are needed to log on?

Tick **one** box.

☐

User ID and Password

☐

Name and Password

☐

User ID and Software Key

☐

Name and Encryption Key

1
0

[Turn over

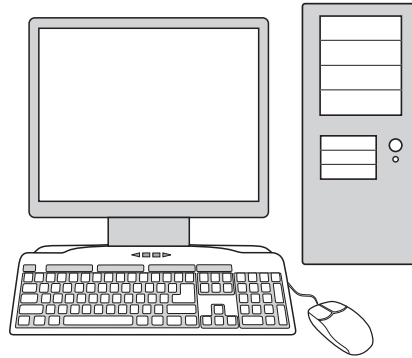
Part A—Computers and the Internet (continued)

8. Gillian has bought the latest version of UK Atlas 2007. The minimum requirements to run the program are:

- Operating System—WinOS 2003 or higher
- Processor—1Ghz (minimum)
- RAM—128Mb available RAM required
- Hard Drive Space—600Mb required
- DVD Drive required

Gillian's computer has the following specification.

- CRT Monitor
- 500Mhz processor
- 128Mb RAM in total
- Floppy Disc Drive
- CD RW Drive
- Hard Drive Space—10Gb
- WinOs 2003 Operating System (requires 64Mb of RAM)
- Graphics Card 204



- (a) Write down **two** reasons why Gillian will not be able to use UK Atlas 2007 on her computer.

1 _____

2 _____

2
1
0

- (b) Gillian's computer has a *CRT Monitor* and a *Graphics Card*.

- (i) What is the purpose of the "Graphics Card" in a computer system?

1
0

- (ii) Gillian could use a *Flat Screen Monitor (LCD)* instead of the *CRT Monitor*.

State **one** advantage of a "flat screen monitor (LCD)" over a "CRT Monitor".

1
0

Part A—Computers and the Internet (continued)**8. (continued)**

- (c) When UK Atlas 2007 is opened on a computer, which type of memory is used?

Tick **one** box.

- ☐ ROM
- ☐ Backing Storage
- ☐ Permanent Memory
- ☐ RAM

1
0

[Turn over]

Part A—Computers and the Internet (continued)

9. Muneeb would like to work from home using his computer and the Internet.

(a) State **two** costs involved when setting up his Internet access.

1 _____

2 _____

2
1
0

(b) Which of the following would give the fastest connection to the Internet?

Tick **one** box.

☐ Dial Up Connection

☐ Sound Card

☐ Broadband

☐ Graphics Card

1
0

(c) Muneeb wants to use the Internet for home banking.

What feature would the banking site need to have so that no-one else could access his bank account details?

1
0

Part A—Computers and the Internet (continued)

- 10.** Streets Ahead Computer Company are in the process of developing a new operating system for their latest computer.

(a) Which category of software best describes the operating system?

Tick **one** box.

- ☐ Application Software
- ☐ Communication Software
- ☐ Systems Software
- ☐ Utility Software

1
0

(b) The completed operating system needs to be posted to customers.

The package takes up to 450 Mb of storage space.

Which of the following backing storage media would be the most appropriate for distributing the new operating system?

Tick **one** box.

- ☐ CD-ROM
- ☐ Floppy Disc
- ☐ Hard Disc
- ☐ CD RW

1
0

[Turn over

Part A—Computers and the Internet (continued)

11. Heidi has created a personal website following the Software Development Process.

(a) Fill in the **two** missing stages of the Software Development Process.

Analysis
Design
Testing
Evaluation

2
1
0

(b) Here is a page from Heidi's website.



Before she created her website, Heidi identified the layout that she wanted and each of the elements that she would put on her website.

Which stage of the Software Development Process is this?

1
0

Part A—Computers and the Internet (continued)

11. (continued)

- (c) After Heidi had finished her website she had to evaluate it.

What is the correct definition of evaluation?

Tick **one** box.

☐

Show what is required

☐

Check the pages work

☐

Check it fulfils the specification

☐

Create the pages

**1
0
(20)**

[END OF PART A—COMPUTERS AND THE INTERNET]

Part B—Information and the Internet

7. Janice wants to keep a database of all her DVDs.

(a) Fill in the **two** missing field types below.

Field Name	Field Type
Chart Position	
DVD Title	Text
Company	Text
Stars	Text
Date Entered Chart	

2
1
0

(b) Janice would like a list of all her DVDs in alphabetical order.
Explain how she could produce this list.

2
1
0

(c)

DVD Title	Category	Stars	Chart Position	Date Entered Chart
All the Good Men	Thriller DVD	Dean Sanders, Michelle Philips	1	12/04/07
Band of Wives	War DVD	Michelle Philips, Jade Alexs	10	12/04/07
Lord and Master	Historical DVD	Russell Sparrow, Leon DeFoe	4	12/05/07
Michael Bland in Concert	Music DVD	Michael Bland	6	05/05/07

What is the output format of the records shown above?

1
0

(d) The DVD “Michael Bland in Concert”, moves up the chart to chart position 2.
What should Janice do to the database to show this change in chart position?
Tick **one** box.

- ☐ Edit records
- ☐ Add new field
- ☐ Sort on single field
- ☐ Delete record

1
0

Part B—Information and the Internet (continued)

8. Carnestie High School holds data about pupils electronically in a private information system.

- (a) Complete the table below by giving **two** examples of different types of information system.

	Private	Public
Electronic	School Information System	
Manual		Newspaper

2
1
0

- (b) Carnestie High School has a **networked** information system.

Identify the benefit to the teachers of having a **networked** information system.

Tick **one** box.

- ☐ Work can be saved and re-loaded
- ☐ Can log on anywhere and access your data
- ☐ Easy to edit data
- ☐ Work is neater

1
0

- (c) Carnestie High School uses the information system to produce reports like the one shown below.

Carnestie High School		
Name:	Ronald Carnegie	
Class:	4A	
Subject	Grade	Effort
English	1	2
Maths	2	1
Computing	3	1
French	3	3
Physics	2	2

Explain why this report is an example of information.

1
0

[Turn over

Part B—Information and the Internet (continued)

8. (continued)

- (d) Ronald tried to break into the school's information system to change the grades on his report.

By trying to do this which law has Ronald broken?

Tick **one** box.

- ☐ Data Protection Act
- ☐ Copyright, Design and Patent Act
- ☐ Computer Misuse Act
- ☐ Regulation of Investigatory Powers Act

**1
0**

- (e) The school publishes statistics about the overall performance of pupils on the *World Wide Web*.

What is the "World Wide Web"?

Tick **one** box.

- ☐ A network of computer networks
- ☐ A local area network
- ☐ Interlinked pages of information on the Internet
- ☐ A website on the Internet

**1
0**

Part B—Information and the Internet (continued)

9. Gurpal uses the Internet at home to download music and videos.

(a) State **two** running costs of using the Internet.

1 _____

2 _____

2
1
0

- (b) Gurpal's computer has a fast processor but is still slow at displaying the content of some websites.

State what other computer hardware could have an effect upon the speed of his computer processing web pages?

1
0

- (c) Gurpal uses "YourMusik.net" to download his favourite music.

When he accesses the website at school he sees the following page.



Gurpal was able to access this website at home.

State why he may not be able to access the website at school.

1
0

[Turn over

Part B—Information and the Internet (continued)

10. MobilesRUs would like a website to advertise their latest line of mobile phones. This website will be developed using the Software Development Process.

Website Homepage Requirements

The homepage will contain;

1. a picture of the shop front
2. links to the websites of phone manufacturers
3. a map to show where the shop is
4. contact details for the owner

- (a) (i) This is the output from one stage of the Software Development Process. Which stage is this?

Tick **one** box.

- | | |
|--------------------------|---------------|
| <input type="checkbox"/> | Analysis |
| <input type="checkbox"/> | Evaluation |
| <input type="checkbox"/> | Design |
| <input type="checkbox"/> | Documentation |

1
0

Part B—Information and the Internet (continued)

10. (a) (continued)

- (ii) Use the homepage requirements to design the homepage of the website for MobilesRUs.



2
1
0

- (b) Once the website has been created it has to be tested.

State **one** thing that should be tested.

1
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(20)

[END OF PART B—INFORMATION AND THE INTERNET]

[END OF SECTION II]

[END OF QUESTION PAPER]

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