C207/SQP228

Computing Studies Intermediate 1

NATIONAL QUALIFICATIONS

Contents *Page*

Course Assessment Specification	2
Specimen Question Paper	5
Specimen Marking Instructions	31
Coursework Task	61
Coursework Task Marking Scheme	68

SCOTTISH QUALIFICATIONS AUTHORITY
©

Course Assessment Specification

Computing Studies Intermediate 1

The purpose of this document is to provide:

- Details of the structure of the Question Paper for this Course
- Details of the structure of the Practical Coursework task that contributes to this Course
- Guidance to centres on how to use information gathered from the Question Paper and the Practical Coursework task in this Course to estimate candidate performance.

Part 1

This part of the Course Assessment Specification details the structure of the Question Paper for this Course

The Question Paper

- consists of 2 sections
- has a mark allocation of 60 marks (whole marks only – no half marks)
- has a time allocation of 1 hour.

Section 1 - 40 marks

- consists of objective and short response questions
- samples across the content statements of the two mandatory units (Computer Applications and Multimedia Applications)
- approximately 20 marks will be for knowledge and understanding
- approximately 20 marks will be for problem solving
- the problem solving will be based in familiar contexts and be of a fairly straightforward nature
- candidates will be expected to tackle all questions in the section.

Section 2 - 20 marks

- this section has two sub-sections, one for each of the optional units (Computers and the Internet, and Information and the Internet)
- candidates will be expected to tackle all the questions within **one** sub-section
- each sub-section consists of objective and short response questions
- approximately 10 marks will be for knowledge and understanding
- approximately 10 marks will be for problem solving
- the questions in each sub-section will sample across the content statements associated with the appropriate optional unit
- some questions, or parts of questions, will require integration of knowledge from the mandatory units.

Part 2

This part of the Course Assessment Specification details the structure of the Practical Coursework Task in this Course.

- The Practical Coursework Task has a mark allocation of 40 marks
- There is no set time allocation, but the task has been designed to be completed by a typical candidate in 8-10 hours

- The task provides the candidate with the opportunity to demonstrate and integrate practical skills and knowledge they have developed within the mandatory units (Computer Applications and Multimedia Applications) in a more complex and less familiar context than is possible within the units

- A new practical coursework task will be provided by SQA in Autumn each year
- The task is only valid for the session in which it is issued

- The task may be undertaken in "open book" conditions, but under supervision of the teacher / lecturer, to ensure that the work presented is the candidate's own work

- The task will be marked by the teacher / lecturer, using a marking scheme provided by SQA, but be subject to moderation
- The marking scheme will provide a mark out of 40, which will be submitted directly to SQA without scaling
- The teacher or lecturer may give the candidate hints and/or help if requested. Any such help should be reflected in the marks awarded
- Once the task has been completed and marked, it should **not** be returned to the candidate for further work.

Part 3

This part of the Course Assessment Specification provides guidance on how to use assessment information gathered from the Question Paper and the Practical Coursework task to estimate candidate performance

Component	Mark Range
Question Paper	0-60
Practical Coursework	0-40
Total Marks	0-100

The mark range for each component takes account of the weighting of each component.

In National Qualifications cut-off scores should be set at approximately 70% for grade A and 50% for grade C with grade B falling midway.

For a total mark range of 0-100, the following gives an indication of the cut-off scores based on the candidate's **total** score.

Grade	Band	Mark Range
A	1	85-100
A	2	70-84
B	3	65-69
B	4	60-64
C	5	55-59
C	6	50-54
D	7	45-49
NA	8	40-44
NA	9	0-39

These cut-off scores may be lowered if Question Paper component turns out to be more demanding or raised if less demanding.

Worked example

- In a centre's own prelim, a candidate scores 44/60, and the candidate scores 18/40 in the practical coursework
- The two marks are added together, giving a total of 62/100
- The centre's view is that their own prelim is slightly less demanding than SQA examination.
- Using the mark range, a realistic estimate may be **band 5** rather than band 4.

FOR OFFICIAL USE

Total

[C207/SQP228]

Computing Studies

Intermediate 1

Specimen Question Paper

Time: 1 hour

NATIONAL QUALIFICATIONS

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 – Information and The Internet

Part B – Computers 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.

SCOTTISH QUALIFICATIONS AUTHORITY ©

DO NOT WRITE IN THIS MARGIN

SECTION I

Attempt ALL questions in this section.

1. Isabella is setting up a new business as a hairdresser.

(*a*) She uses computer applications to carry out some tasks.

Match the most appropriate computer application to a task by drawing a line. Each application is used for only one task. One has been done for you.

Application	*Task*
Multimedia application	Storing information such as customers names and addresses
Spreadsheet application	Creating a website to advertise her business
Database application	Keeping track of money coming in and going out
Graphics application	Creating a poster

10

(*b*) When using a computer application, Isabella uses on-line help.

(i) Explain what is meant by on-line help.

_____

_____ **10**

(ii) Give **one** advantage of on-line help rather than using a printed manual.

_____

_____ **10**

1. (continued)

(*c*) Isabella has the following computer system.

2·4 GHz processor
256 Mb RAM
40 Gb Hard Disk
CD-ROM Drive
17" Monitor
Operating System: BestOs 2005

Which of the following applications below could run on her computer system?

Tick **one** box.

☐ **GraffixArt**
266 MHz processor, 64 Mb RAM,
1 Gb Hard Disk, CD-ROM Drive, BestOs2005

☐ **DataFiler**
2·8 GHz processor, 128 Mb RAM,
40 Gb Hard Disk, CD-ROM Drive, BestOs2005

☐ **CalcSheet**
2·4 GHz processor, 512 Mb RAM,
20 Gb Hard Disk, CD-ROM Drive, BestOs2005

☐ **TextType**
1·2 GHz processor, 64 Mb RAM,
20 Gb Hard Disk, DVD Drive, BestOs2005 **10**

(*d*) Isabella needs to load a file from a backing storage device.

Which of the following will load the file fastest?

Tick **one** box.

☐ Hard Disk Drive

☐ Floppy Disk Drive

☐ CD-ROM Drive

☐ CD-RW Drive **10**

DO NOT WRITE IN THIS MARGIN

1. (continued)

(*e*) Which of the following shows backing storage capacity in ascending order (smallest to largest)?

Tick **one** box.

- [ ] Kb, Gb, Mb, Tb
- [ ] Kb, Mb, Gb, Tb
- [ ] Mb, Kb, Gb, Tb
- [ ] Mb, Gb, Kb, Tb

1 0

DO NOT WRITE IN THIS MARGIN

2. As a 60th birthday present Eddie has been given a computer.

(*a*) Eddie normally uses pen and paper to write letters to his granddaughter. He has decided to create a letter using the word processing application.

Give **two** advantages of using a word processor application rather than pen and paper.

1 _____

_____

2 _____ **2**

_____ **1 0**

(*b*) Eddie is very slow at typing as he is not familiar with the layout of a keyboard. Suggest **one** alternative method of entering text into a word processing application.

_____ **1 0**

(*c*) Once Eddie has finished entering the text, he prints out a copy. He thinks that the text needs to look more interesting.

Suggest **two** ways of changing the text to improve the presentation of the letter.

1 _____ **2**

2 _____ **1 0**

DO NOT WRITE IN THIS MARGIN

3. Swee has been asked to make a presentation. Her presentation requires a special graphic that she needs to download from the World Wide Web.

(*a*) Which of the following pieces of hardware could be used to connect her computer to the World Wide Web?

Tick **one** box.

- [ ] Microphone
- [ ] Sound card
- [ ] Modem
- [ ] Hard Disk

1 0

(*b*) Once she downloads the graphic file she finds that it has been compressed.

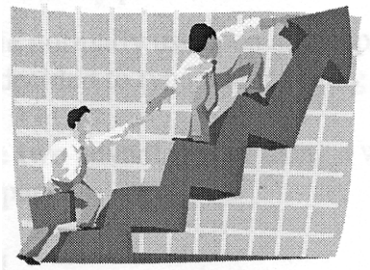
What effect does compression have on the file?

_____

1 0

3. (continued)

(*c*) Swee decides to change one of the slides.



Recent analysis has shown the following:
Profits have risen by 5%
Overheads have reduced by 15%
Production rates have risen 12%

Figure A

Recent analysis has shown the following:
- Profits have risen by 5%
- Overheads have reduced by 15%
- Production rates have risen 12%

Figure B

(i) Which editing facility has been used to alter the **graphic** in Figure A to look like the graphic in Figure B?

Tick **one** box.

☐ Flip
☐ Scale
☐ Rotate
☐ Crop

1 0

(ii) Which multimedia editing facility has been used to alter the **text** in Figure A to make it look like Figure B?

_____

1 0

(*d*) In order to make the slide more interesting, Swee adds some *graphics effects*.

Name **two** "graphics effects" that could be used.

1 _____

2 _____

2 1 0

(*e*) Which output device would you recommend she use to show the presentation to several hundred employees?

_____

1 0

4. Below is a printout from a computer application used to automatically calculate the money raised from a sponsored walk.

	A	B	C	D
1	Sponsored Walk		Year	2005
2				
3	**Name**	**£ per mile**	**no of miles**	**Individual Total**
4				
5	Julia	£0·20	25	£5·00
6	Gareth	£0·30	20	£6·00
7	Christine	£0·25	100	£25·00
8	Reece	£0·41	32	£13·12
9			**Overall Total**	£49·12

(*a*) What type of computer application would be **most suitable** to create the above printout?

Tick **one** box.

☐ Spreadsheet

☐ Database

☐ Word Processing

☐ Graphics **1 0**

(*b*) Cells can contain numbers, text or formulae.

(i) Select the correct formulae for cell **D9**.

Tick **one** box.

☐ =D1+D2+D3+D4+D5+D6+D7+D8

☐ =D5+D6+D7+D8+D9

☐ =SUM(D5:D8)

☐ =SUM(D1:D9) **1 0**

4. (*b*) (continued)

(ii) Select **one** other cell which contains a formula.

Tick **one** box.

- [ ] C3
- [ ] D3
- [ ] C5
- [ ] D5

1 0

(*c*) The information in cell C6 is wrong. It should be 15. Name **one** other cell that would automatically change when this information is corrected.

1 0

_____

(*d*) The information needs to be displayed in order of **individual total**. Which feature of the package should be used to do this?

1 0

_____

DO NOT WRITE IN THIS MARGIN

5. Alanna is creating a company newsletter.

(*a*) Which type of application would be most suitable for this task?

Tick **one** box.

- [ ] Graphics
- [ ] Presentation
- [ ] Desktop Publishing
- [ ] Multimedia Authoring

1 0

(*b*) As this is the first edition of the newsletter, Alanna makes a template.

Describe **two** advantages of using a template to create the newsletter.

1 _____

_____

2 _____

_____

2 1 0

(*c*) Alanna decided to use portrait orientation rather than landscape orientation.

In the box below, explain the difference between portrait and landscape. You may use a labelled diagram.

1 0

5. (continued)

(*d*) Alanna has used *OCR* to enter an article into the newsletter.

(i) Which piece of hardware would she use for "OCR"?

Tick **one** box.

- [ ] Scanner
- [ ] Graphics Card
- [ ] Graphics Tablet
- [ ] Printer

1 0

(ii) What does "OCR" stand for?

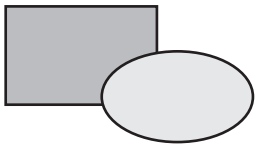
Tick **one** box.

- [ ] Optical Character Recognition
- [ ] Optical Colour Reader
- [ ] Output Character Recognition
- [ ] Output Colour Reader

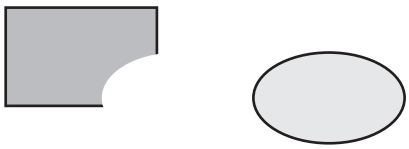
1 0

6. The picture below was created using a graphics application.

(*a*) An ellipse was drawn on top of a rectangle.



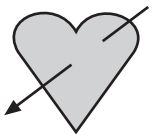
When the shapes were separated the picture looked like this:



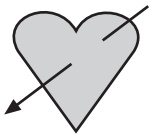
What type of graphics application was used to draw the picture?

_____ **1 0**

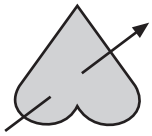
(*b*) Below is a picture created using a drawing package.



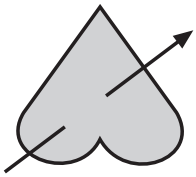
The entire picture was manipulated by rotating and then scaling. Which of the pictures below has been rotated and scaled?



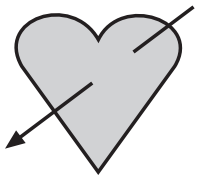
A



B



C



D

Tick **one** box.

☐ A

☐ B

☐ C

☐ D **1 0**

DO NOT WRITE IN THIS MARGIN

7. Fairview Academy issues each new pupil with a CD-R. Contained on the CD-R is a speech from the Headteacher and some useful information about the school and staff.

(*a*) What **two** items of hardware are required to capture the Headteacher's speech?

Tick **one** box.

- [ ] Microphone and Scanner
- [ ] Microphone and Sound Card
- [ ] Speakers and Sound Card
- [ ] Speakers and Scanner **10**

(*b*) Give **two** reasons why a CD-R was chosen to store the information.

1 _____ **21**

2 _____ **0**

(*c*) Which feature of the multimedia application allows the pupil to navigate through the CD-R?

_____ **10**

DO NOT WRITE IN THIS MARGIN

8. Property2go rents out holiday property. Information about each of the 350 properties is stored in a database application.

Below is the information held on one property.

Property Code:	**6441**
Property Type:	**Cottage**
Address:	**Damhead Cottage, Edinburgh**
Sleeps:	**4**
Features:	**Fireplace, large garden, fishing nearby, dogs allowed**

(*a*) Which **one** of the following fields in the database is a numeric field?

Tick **one** box.

- [ ] Property Type
- [ ] Address
- [ ] Sleeps
- [ ] Features **10**

(*b*) The company would like to store the cost for each property.

Explain how this information could be included in the database.

_____ **2**

_____ **10**

(*c*) How can the database be used to find **only** flats that sleep more than four people?

Select the correct option below.

Tick **one** box.

- [ ] Search on Property Type field and on Sleeps field
- [ ] Search on Property Type field and sort on Sleeps field
- [ ] Sort on Property Type field and search on Sleeps field
- [ ] Sort on Property Type field and on Sleeps field **10**

8. (continued)

(*d*) Each record contains a short video clip of the property. Which of the following is a video file type?

Tick **one** box.

- ☐ jpeg
- ☐ mp3
- ☐ mpeg
- ☐ txt

1 0 (40)

[*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.

Information and the Internet ☐

Computers and the Internet ☐

Part A—Information and the Internet

1. Tom stores information about his computer games using a database program. Here is a printout showing some of his games.

Computer Games				
Name	**Purchased**	**Type**	**Price**	**Highest Score**
Warrior Child	01/05/2002	Action/Adventure	£39.99	700
Ziktor Worlds	02/02/2002	Adventure	£29.99	1200
Football 2003	23/09/2002	Sport	£39.99	3000
Timewarriors	05/05/2002	First Person Shooter	£34.99	9500
Puzzledom 3	02/03/2001	Puzzle	£29.99	400

(*a*) State the correct field type for the *Purchased* field.

_____ **10**

(*b*) Which field might Tom have to edit regularly?

_____ **10**

(*c*) Tom has bought a new game.
What must Tom do before he can enter data about the new game?

_____ **10**

Part A—Information and the Internet (continued)

2. Megan is booking a holiday. Her travel agent uses several types of information systems.

(*a*) Information systems can be described as *manual* or *electronic* **and** *public* or *private*.

(i) Tick the correct description for each system below. The first one has been done for you.

	manual	*electronic*	*public*	*private*
World Wide Web travel sites		✓	✓	
Travel agent's customer database				
Travel brochures				
Travel agent's staff notice board				

3 2 1 0

(ii) Give **two** advantages of using an electronic information system rather than a manual information system.

1 _____

_____

2 _____ 2 1 0

_____

(*b*) Her friend has already booked the same holiday. Megan tries to find out details about her friend's booking from the travel agent.

Explain why the travel agent should **not** give this information to Megan.

_____ 1 0

Part A—Information and the Internet (continued)

3. Quasim has bought a new computer system which was advertised as "Internet ready".

(*a*) His computer will access the Internet using a modem. Suggest one cost he may incur using the Internet.

10

(*b*) When Quasim logs on to the Internet he has to type in two pieces of information as shown below.

username:	Quasim56
password:	******

Suggest a reason why Quasim's password appears as ******.

10

(*c*) Quasim needs new software for his computer. He is worried about security when buying programs on the Internet.

Explain how Quasim can recognise a secure website.

10

Part A—Information and the Internet (continued)

4. Mahdia has to complete a history project on World War II. She has found a website with text and graphics.

(*a*) Mahdia would like to download some pictures but thinks this may be illegal.

Which law may she be breaking? Tick **one** box.

- Data Protection Act ☐
- Health and Safety at Work Act ☐
- Regulation of Investigatory Powers Act ☐
- Copyright Designs and Patents Act ☐

1 0

(*b*) Mahdia downloads a picture. The file size of the graphic is 245 kilobytes.

Explain whether 245 kilobytes is *data* or *information* in this context.

_____

_____ **1 0**

(*c*) The picture is stored on a USB Flash drive.

Suggest a reason why Mahdia uses this type of storage device rather than a hard disk drive.

_____ **1 0**

(*d*) This website contains links to other websites about World War II.

Describe what happens when the user clicks on a link.

_____

_____ **1 0**

Part A—Information and the Internet (continued)

5. Linn has created a website for her Youth Club. She has just finished the *design stage*.

(*a*) In the Software Development Process, which stage **follows** the "design stage"?

_____ **10**

(*b*) When the Web pages have been created, testing should be carried out. Linn checks to see that the pages look similar to her designs.

Suggest another test Linn should carry out.

_____

_____ **10**

(*c*) Linn has asked the youth club leaders to check if the finished website meets their requirements.

What is the name for this stage of the Software Development Process?

_____ **10**

(*d*) A *user guide* and a *technical guide* are two of the documents produced during software development.

Explain the purpose of a "User Guide".

_____ **10**

[*END OF PART A—INFORMATION AND THE INTERNET*]

Part B—Computers and the Internet

1. A computer is for sale with the following features.

Centrium 4·0 GHz processor
256 Mb RAM
60 Gb hard disk
CD-RW drive
Touchpad
LCD display
BestOS2005 Operating System
Rechargeable batteries

(*a*) From the list of features above, choose an example for each of the following. The first one has been completed for you.

output device	*LCD Display*
software	
input device	
backing storage device	

3 2 1 0

(*b*) What type of personal computer is this?

Tick **one** box.

Desktop ☐

Laptop ☐

Palmtop ☐

Mainframe ☐

1 0

(*c*) A customer would prefer to buy a computer with a modem.

Give a reason for requiring a modem.

_____

1 0

Part B—Computers and the Internet (continued)

1. (continued)

(*d*) The following package has been bought.

DreampageMaker—requirements:
3 GHz Celerion III processor
512 Mb RAM
275 MB hard disk space
CD-ROM drive
BestOS2005 Operating System

Give **one** reason why this application will not run on this computer.

_____ **10**

Part B—Computers and the Internet (continued)

2. Students from all year groups save their work on the library computer. It takes time to find each student's file as they are all stored together on the Desktop.

(*a*) Suggest **two** actions the teacher can take to organise the files.

1 _____ **2**

2 _____ **1 0**

(*b*) The teacher has just used the computer to type a letter for parents.

(i) Tick to show which type of software was used to **create** the letter.

program file ☐

operating system ☐

OCR software ☐

data file ☐ **1 0**

(ii) Tick to show which type of software was used to **save** the letter.

program file ☐

operating system ☐

OCR software ☐

data file ☐ **1 0**

(iii) Tick to show which term correctly describes the **saved letter**.

program file ☐

operating system ☐

OCR software ☐

data file ☐ **1 0**

Part B—Computers and the Internet (continued)

3. Samantha is to publish a Web page about her recent work experience. She intends to follow through all the stages of the Software Development Process.

(*a*) Name the first stage in the Software Development Process.

_____ **1 0**

(*b*) Samantha plans her page layout carefully on paper.

Identify **one** element you would expect to see in her plan.

_____ **1 0**

(*c*) Testing should be carried out once the page has been made.

Suggest **two** checks Samantha should make at this stage.

1 _____ **2**

2 _____ **1 0**

(*d*) Explain the purpose of the Evaluation stage.

_____

_____ **1 0**

Part B—Computers and the Internet (continued)

4. A company wishes to make a multimedia presentation about their products.

(*a*) Suggest one input device which can be used to capture pictures.

_____ **10**

(*b*) The pictures should be of good quality with plenty of colours.

Which one of the following affects the quality of the display on the monitor?

Tick **one** box.

network card	☐
graphics card	☐
graphics application	☐
multimedia application	☐

10

(*c*) The completed presentation will be sent by post to several of the company's best customers.

(i) Suggest one type of *storage medium* the company might use for posting.

_____ **10**

(ii) Give **one** reason for your choice.

_____ **10**

[*END OF PART B—COMPUTERS AND THE INTERNET*]

[*END OF SECTION II*]

[*END OF QUESTION PAPER*]

[C207/SQP228]

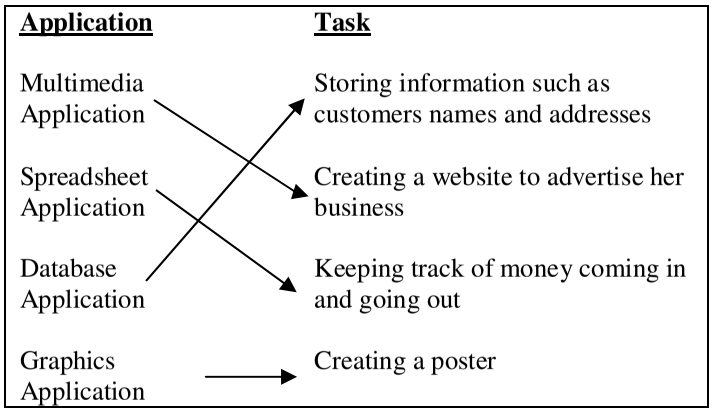
Computing Studies

Intermediate 1

Specimen Marking Instructions

NATIONAL QUALIFICATIONS

SCOTTISH QUALIFICATIONS AUTHORITY ©

SECTION 1		MARKING GUIDELINES
1.	Isabella is setting up a new business as a hairdresser.	
	(*a*) She uses computer applications to carry out some tasks. Match the most appropriate computer application to a task by drawing a line. Each application is used for only one task. One has been done for you.  	All arrows correct *1 mark* *Comp Apps(All Applics) – PS Obj*

	(*b*) When using a computer application, Isabella uses on-line help. (i) Explain what is meant by on-line help.	• Instructions/help given while using the computer • Any other valid answer *1 mark* *Comp Apps(All Applics) - KU*
	(ii) Give **one** advantage of on-line help rather than using a printed manual.	• Can use search facility • No need to search through pages and pages • Always available • Any other valid answer *1 mark* *Comp Apps(All Applics) – PS*

	(*c*) Isabella has the following computer system. 2.4 GHz processor 256 Mb RAM 40 Gb Hard Disk CD-ROM Drive 17" Monitor Operating System: BestOs 2005 Which of the applications below could run on her computer system? Tick **one** box. ☐ **GraffixArt** 266 MHz processor, 64 Mb RAM, 1 Gb Hard Disk, CD-ROM Drive, BestOs2005 ☐ **DataFiler** 2.8 GHz processor, 128 Mb RAM, 40 Gb Hard Disk, CD-ROM Drive, BestOs2005 ☐ **CalcSheet** 2.4 GHz processor, 512 Mb RAM, 20 Gb Hard Disk, CD-ROM Drive, BestOs2005 ☐ **TextType** 1.2 GHz processor, 64 Mb RAM, 20 Gb Hard Disk, DVD Drive, BestOs2005	• GraffixArt *1 mark* *Comp Apps(All Applics) – PS Obj*

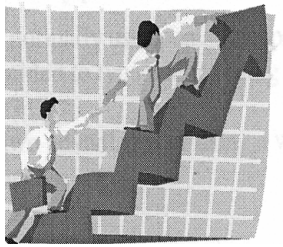
	(*d*) Isabella needs to load a file from a backing storage device. Which of the following will load the file fastest? Tick **one** box. ☐ Hard Disk Drive ☐ Floppy Disk Drive ☐ CD-ROM Drive ☐ CD-RW Drive	• Hard disk drive *1 mark* *Multimedia(Hardware) – KU* *Obj*
	(*e*) Which of the following shows backing storage capacity in ascending order (smallest to largest)? Tick **one** box ☐ Kb, Gb, Mb, Tb ☐ Kb, Mb, Gb, Tb ☐ Mb, Kb, Gb, Tb ☐ Mb, Gb, Kb, Tb	• Kb, Mb, Gb, Tb *1 mark* *Multimedia(Hardware) – PS* *Obj*

2.	As a 60th birthday present Eddie has been given a computer.	
	(*a*) Eddie normally uses pen and paper to write letters to his granddaughter. He has decided to create a letter using the word processing application. Give **two** advantages of using a word processing application rather than pen and paper.	• Alter the style/format of the text • Add graphics easily • Changes can be made very quickly • Use of spell checker and other features such as Search and Replace • Any other valid answer *1 mark each* *max 2 marks* *Comp Apps(WP) – PS*
	(*b*) Eddie is very slow at typing as he is not familiar with the layout of a keyboard. Suggest **one** alternative method of entering text into a word processing application.	• OCR • Handwriting recognition • Voice recognition or microphone • Touch sensitive screen *1 mark* *Comp Apps(WP) – KU*
	(*c*) Once Eddie has finished entering the text, he prints out a copy. He thinks that the text needs to look more interesting. Suggest **two** ways of changing the text to improve the presentation of the letter.	• Adding centre, bold, italics etc • Resizing the text • Changing the font • Any other valid answer NOT add graphics *1 mark each* *max 2 marks* *Comp Apps(WP) – KU*

3.	Swee has been asked to make a presentation. Her presentation requires a special graphic that she needs to download from the World Wide Web.	
	(*a*) Which of the following pieces of hardware could be used to connect her computer to the World Wide Web? Tick **one** box. ☐ Microphone ☐ Sound card ☐ Modem ☐ Hard Disk	• Modem *1 mark* *Multimedia(Hardware) - KU* *Obj*
	(*b*) Once she downloads the graphic file she finds that it has been compressed. What effect does compression have on the file?	• Makes the file size smaller *1 mark* *Multimedia(Software) – KU*

(*c*) Swee decides to change one of the slides.

Figure A



Recent analysis has shown
the following:
Profits have risen by 5%
Overheads have reduced by 15%
Production rates have risen 12%

Figure B

Recent analysis has shown
the following:

- Profits have risen by 5%
- Overheads have reduced by 15%
- Production rates have risen 12%

(i) Which editing facility has been used to alter the **graphic** in Figure A to look like the graphic in Figure B?

Tick **one** box.

- [ ] Flip
- [ ] Scale
- [ ] Rotate
- [ ] Crop

- Crop

1 mark
Multimedia(Software) – PS
Obj

(ii) Which multimedia editing facility has been used to alter the **text** in Figure A to make it look like Figure B?

- Bullet Points

1 mark
Multimedia(Software) - PS

	(*d*) In order to make the slide more interesting, Swee adds some *graphics effects*. Name **two** "graphics effects" that could be used.	• Fade in • Flashing • Any other valid answer *1 mark each* *max 2 marks* *Multimedia(Software) – KU*
	(*e*) Which output device would you recommend she use to show the presentation to several hundred employees?	• Data projector / Projector *1 mark* *Multimedia(Hardware) -PS*
4.	Below is a printout from a computer application used to automatically calculate the money raised from a sponsored walk.	

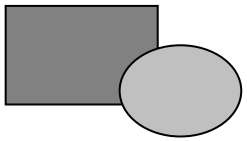
	A	B	C	D
1	Sponsored Walk		Year	2003
2				
3	**Name**	**£ per mile**	**no of miles**	**Individual Total**
4				
5	Julia	£0.20	25	£5.00
6	Gareth	£0.30	20	£6.00
7	Christine	£0.25	100	£25.00
8	Reece	£0.41	32	£13.12
9			**Overall Total**	£49.12

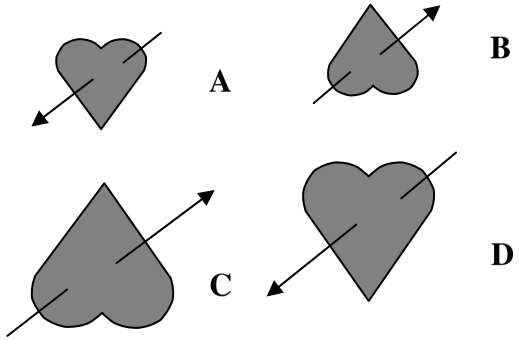
	(*a*) What type of computer application would be **most suitable** to create the above printout? Tick **one** box. ☐ Spreadsheet ☐ Database ☐ Word Processing ☐ Graphics	• Spreadsheet *1 mark* *Comp Apps(SS) – KU* *Obj*

	(*b*) Cells can contain numbers, text or formulae. (i) Select the correct formula for cell **D9.** Tick **one** box. ☐ =D1+D2+D3+D4+D5+D6+D7+D8 ☐ =D5+D6+D7+D8+D9 ☐ =SUM(D5:D8) ☐ =SUM(D1:D9)	• =SUM(D5:D8) *1 mark* *Comp Apps(SS) – PS* *Obj*
	(ii) Select **one** other cell which contains a formula. Tick **one** box. ☐ C3 ☐ D3 ☐ C5 ☐ D5	• D5 *1 mark* *Comp Apps(SS) – PS* *Obj*
	(*c*) The information in cell C6 is wrong. It should be 15. Name **one** other cell that would automatically change when this information is corrected.	• D6 • D9 *1 mark* *Comp Apps(SS) - PS*
	(*d*) The information needs to be displayed in order of **individual total**. Which feature of the package should be used to do this?	• Sort *1 mark* *Comp Apps(SS) - KU*

5.	Alanna is creating a company newsletter.	
	(*a*) Which type of application would be most suitable for this task? Tick **one** box. ☐ Graphics ☐ Presentation ☐ Desktop Publishing ☐ Multimedia Authoring	• Desktop Publishing *1 mark* *Multimedia(Document) – KU* *Obj*
	(*b*) As this is the first edition of the newsletter, Alanna makes a template. Describe **two** advantages of using a template to create the newsletter.	• All pages will look the same • Quick to get started • Same background, text sizes etc • Any other valid answer *1 mark each* *max 2 marks* *Multimedia(Document) – PS*
	(*c*) Alanna decided to use portrait orientation rather than landscape orientation. In the box below, explain the difference between portrait and landscape. You may use a labelled diagram	• Labelled diagram of portrait and landscape • Portrait – tall and thin ??? • Landscape – short and fat??? *1 mark* *Multimedia(Document) – KU*

	(*d*) Alanna has used *OCR* to enter an article into the newsletter. (i) Which piece of hardware would she use for "OCR"? Tick **one** box. ☐ Scanner ☐ Graphics Card ☐ Graphics Tablet ☐ Printer	• Scanner *1 mark* *Multimedia(Hardware) – KU* *Obj*
	(ii) What does "OCR" stand for? Tick **one** box. ☐ Optical Character Recognition ☐ Optical Colour Reader ☐ Output Character Recognition ☐ Output Colour Reader	• Optical Character Recognition *1 mark* *Comp Apps(WP) – KU* *Obj*

6.	The picture below was created using a graphics application.	
	(*a*) An ellipse was drawn on top of a rectangle.  When the shapes were separated the picture looked like this: What type of graphics application was used to create the picture?	• Painting package *1 mark* *Comp Apps(Graphics) - PS*

	(*b*) Below is a picture created using a drawing package. 	
	The entire picture was manipulated by rotating and then scaling. Which of the pictures below has been rotated and scaled?  Tick **one** box. ☐ A ☐ B ☐ C ☐ D	• C *1 mark* *Comp Apps(Graphics) – PS* *Obj*

7.	Fairview Academy issues each new pupil with a CD-R. Contained on the CD-R is a speech from the Headteacher and some useful information about the school and staff.	
	(*a*) What **two** items of hardware are required to capture the Headteacher's speech? Tick **one** box. ☐ Microphone and Scanner ☐ Microphone and Sound Card ☐ Speakers and Sound Card ☐ Speakers and Scanner	• Microphone and Sound Card *1 mark* *Multimedia(Hardware) – KU* *Obj*
	(*b*) Give **two** reasons why a CD-R was chosen to store the information.	• Portability • Enough capacity to store the presentation • Any other valid answer *1 mark each* *max 2 marks* *Multimedia(Hardware) - PS*
	(c) Which feature of a multimedia application allows the pupil to navigate through the CD-R?	• Page links • Hyperlinks *1 mark* *Multimedia(Software) - KU*

8.	Property2go rents out holiday property. Information about each of the 350 properties is stored in a database application. Below is the information held on one property. Property Code: **6441** Property Type: **Cottage** Address: **Damhead Cottage, Edinburgh** Sleeps: **4** Features: **Fireplace, large garden, fishing**	
	(*a*) Which **one** of the following fields in the database is a numeric field? Tick **one** box. ☐ Property Type ☐ Address ☐ Sleeps ☐ Features	• Sleeps *1 mark* *Comp Apps(Database) – KU* *Obj*
	(*b*) The company would like to store the cost of each property. Explain how this information could be included in the database.	• Add a field to the database • Insert the information into the field *1 mark each* *max 2 marks* *Comp Apps(Database) - PS*

	(*c*) How can the database be used to find **only** flats that sleep more than four people? Select the correct option below. Tick **one** box. ☐ Search on Property Type field and on Sleeps field ☐ Search on Property Type field and sort on Sleeps field ☐ Sort on Property Type field and search on Sleeps field ☐ Sort on Property Type field and on Sleeps field	• Search on Property Type field and on Sleeps field (option 1) *1 mark* *Comp Apps(Database) – PS* *Obj*
	(*d*) Each record contains a short video clip of the property. Which of the following is a video file type? Tick **one** box. ☐ jpeg ☐ mp3 ☐ mpeg ☐ txt	• mpeg *1 mark* *Multimedia(Software) – KU* *Obj*
		(40)

	SECTION II – PART A INFORMATION AND THE INTERNET	MARKING GUIDELINES
1.	Tom stores information about his computer games using a database program. Here is a printout showing some of his games. **Computer Games** Name: Warrior Child; Purchased: 01/05/2002; Type: Action/Adventure; Price: £39.99; Highest Score: 700 Name: Ziktor Worlds; Purchased: 02/02/2002; Type: Adventure; Price: £29.99; Highest Score: 1200 Name: Football 2003; Purchased: 23/09/2002; Type: Sport; Price: £39.99; Highest Score: 3000 Name: Timewarriors; Purchased: 05/05/2002; Type: First Person Shooter; Price: £34.99; Highest Score: 9500 Name: Puzzledom 3; Purchased: 02/03/2001; Type: Puzzle; Price: £29.99; Highest Score: 400	
	(*a*) State the correct field type for the *Purchased* field.	• Date type *1 mark* *Database Terms – PS*
	(*b*) Which field might Tom have to edit regularly ?	• Highest Score field *1 mark* *Database Terms – PS*
	(*c*) Tom has bought a new game. What must Tom do before he can enter data about the new game ?	• Add a new record *1 mark* *Database Terms – PS*

2.	Megan is booking a holiday. Her travel agent uses several types of information systems.	
	(*a*) Information systems can be described as *manual* or *electronic* **and** *public* or *private*. (i) Tick the correct description for each system below. The first one has been done for you. manual / electronic / public / private World Wide Web travel sites: electronic ✔, public ✔ Travel agent's customer database Travel brochures Travel agent's staff notice board	• customer database – electronic and private; • brochures – manual and public; • staff notice board – manual and private *3 marks* *Information Systems*
	(ii) Give **two** advantages of using an electronic information system rather than a manual information system.	• records/cards don't get lost; • fast to search; • easy to update field data etc • or other valid point *2 marks* *Information Systems*
	(*b*) Her friend has already booked the same holiday. Megan tries to find out details about her friend's booking from the travel agent. Explain why the travel agent should **not** give this information to Megan.	• under the terms of Data Protection • confidential information should not be passed on to third party • name of Act – *1 mark* • valid point about Act – *1 mark* *1 mark* *Information Systems*

3.	Quasim has bought a new computer system which was advertised as 'Internet ready'.	
	(*a*) His computer will access the Internet using a modem. Suggest **one** cost he may incur using the Internet.	• connection charge – or • subscription cost to provider • valid point re cost/s as access methods of change *1 mark* *Internet Implications – KU*
	(*b*) When Quasim logs on to the Internet he has to type in two pieces of information as shown below. username : Quasim56 password : ****** Suggest a reason why Quasim's password appears as ******.	• protect access to his own account • answer must highlight account security *1 mark* *Internet Implications – KU*
	(*c*) Quasim needs new software for his computer. He is worried about security when buying programs on the Internet. Explain how Quasim can recognise a secure website.	• alert box informs user that site is secure • browser icon alerts user that connection/site is secure *1 mark* *Internet Implications – KU*

4.	Mahdia has to complete a history project on World War II. She has found a website with text and graphics.	
	(*a*) Mahdia would like to download some pictures but thinks this may be illegal. Which law may she be breaking? Tick **one** box. Data Protection Act ☐ Health and Safety at Work Act ☐ Regulation of Investigatory Powers Act ☐ Copyright Designs and Patents Act ☐	• Copyright Designs and Patents Act *1 mark* *Information Systems – KU* *Obj*
	(*b*) Mahdia downloads a picture. The file size of the graphic is 245 kilobytes. Explain whether 245 kilobytes is *data* or *information* in this context.	• data – 245K is meaningless by itself information – useful/meaningful to Mahdia if she wants to save file or use the file again • must justify answer – no marks for data/information alone • *1 mark* *Information Systems – PS*
	(*c*) The picture is stored on a USB Flash drive. Suggest a reason why Mahdia uses this type of storage device rather than a hard disk drive.	• this type of drive is portable – Mahdia can use this drive on another computer system easily • clear explanation of different needed *1 mark* *Multimedia Apps – Hardware – PS*

	(*d*) This website contains links to other websites about World War II. Describe what happens when the user clicks on a link.	• a different remote computer/server is contacted • answer must show understanding of underlying network/s used *1 mark* *Information Systems – KU*
5.	Linn has created a website for her Youth Club. She has just finished the *design stage*.	
	(*a*) In the Software Development Process, which stage follows the "design stage" ?	• Implementation stage *1 mark* *Software Development Process – KU*
	(*b*) When the Web pages have been created, testing should be carried out. Linn checks to see that the pages look similar to her designs. Suggest another test Linn should carry out.	• she should check that all links work as planned *1 mark* *Software Development Process – PS*
	(*c*) Linn has asked the youth club leaders to check if the finished website meets their requirements. What is the name for this stage of the Software Development Process?	• Evaluation stage *1 mark* *Software Development Process – PS*

	(*d*) A *user guide* and a *technical guide* are two of the documents produced during software development. Explain the purpose of a "User Guide".	• Tells the user how to start up and run the software *1 mark* *Software Development Process – KU*

(END OF PART A – INFORMATION AND THE INTERNET)

SECTION II – PART B COMPUTERS AND THE INTERNET		MARKING GUIDELINES
1.	A computer is for sale with the following features. **Centrium 4.0 GHz processor** **256 Mb RAM** **60 Gb hard disk** **CD-RW drive** **Touchpad** **LCD display** **BestOS2005 Operating System** **Rechargeable batteries**	
	(*a*) From the list of features above, choose an example for each of the following. The first one has been completed for you. output device — *LCD Display* software — input device — backing storage device —	• Software = BestOS 2005/Operating system/accept either or both; • Input device = touchpad • Storage device : 60 Gb hard disk or CD-RW drive One mark each, for correctly matching category to named device *3 marks* *Computer Hardware – KU*

	(*b*) What type of computer is this? Tick **one** box. Desktop ☐ Laptop ☐ Palmtop ☐ Mainframe ☐	• Laptop 1 *mark* *Computer Hardware – PS* *Obj*
	(*c*) A customer would prefer to buy a computer with a modem. Give a reason for requiring a modem.	• To enable Internet access or similar answer 1 *mark* *Computer Hardware – KU*
	(*d*) The following software package has been bought. DreampageMaker – requirements : 3 GHz Celerion III processor 512 Mb RAM 275 MB hard disc space CD-ROM drive BestOS 2005 Operating System Give **one** reason why this application will not run on this computer.	• program requires more RAM than computer has available *1 mark* *Computer Software-PS*

2.	Students from all year groups save their work on the library computer. It takes time to find each student's file as they are all stored together on the Desktop.	
	(*a*) Suggest **two** actions the teacher can take to organise the files. 1 2	• create folders, organize/move files into folders *2 marks* *Computer Software - PS*
	(b) The teacher has just used the computer to type a letter for parents. (i) Tick to show which type of software was used to **create** the letter. program file ☐ operating system ☐ OCR software ☐ data file ☐	• program file *1 mark* *Computer Software -PS* *Obj*
	(ii) Tick to show which type of software was used to **save** the letter. program file ☐ operating system ☐ OCR software ☐ data file ☐	• operating system *1 mark* *Computer Software -PS* *Obj*

	(iii) Tick to show which term correctly describes the **saved letter**. program file ☐ operating system ☐ OCR software ☐ data file ☐	• data file *1 mark* *Computer Software -PS* *Obj*
3.	Samantha is to publish a Web page about her recent work experience. She intends to follow through all the stages of the Software Development Process.	
	(*a*) Name the first stage in the Software Development Process.	• the Analysis stage *1 mark* *Software Development Process – KU*
	(*b*) Samantha plans her page layout carefully on paper. Identify **one** element you would expect to see in her plan.	• text, graphics, links – any one *1 mark* *Software Development Process – KU*

	(*c*) Testing should be carried out once the page has been made. Suggest **two** checks Samantha should make at this stage. 1 2	• testing that the pages look as planned; testing that the links work as planned *2 marks* *Software Development Process – KU*
	(*d*) Explain the purpose of the Evaluation stage.	• determine how successfully completed site matches specification *1 mark* *Software Development Process – KU*
4.	A company wishes to make a multimedia presentation about their products.	
	(*a*) Suggest one input device which can be used to capture pictures.	• Scanner or digital camera *1 mark* *Computer Hardware – KU*
	(*b*) The pictures should be of good quality with plenty of colours. Which one of the following affects the quality of the display on the monitor? Tick **one** box. network card ☐ graphics card ☐ graphics application ☐ multimedia application ☐	• graphics card *1 mark* *Computer Hardware – PS* *Obj*

	(*c*) The completed presentation will be sent by post to several of the company's best customers. (i) Suggest one type of *storage medium* the company might use for posting.	• CD ROM or DVD ROM *1 mark* *Computer Hardware – PS*
	(ii) Give **one** reason for your choice.	• Reason for choice : cost to produce; content can't be changed; capacity *1 mark* *Computer Hardware – PS*

Coursework Task

Intermediate 1 Computing Studies Coursework Task Specimen

Project specification

Introduction

You have been asked to produce a report for Belstaff Academy on their volleyball team. Your report will include text about the team, a picture of the team and the school logo.

This report can be created using DTP, Presentation or Multimedia Authoring Software.

The text, picture and logo for this task are shown on page two – the items page**.**

What you will need

- Access to a computer with a printer.
- Access to a scanner which links to the computer.
- Software that allows you to use the scanner.
- Software that allows you to combine text and graphics.
- An A4 sheet to design parts of your report.

What you have to do

The stages of your project are set out on pages three to seven. You should take about five hours to work through them, working as far as possible on your own without help.

At each stage of the project, you will produce something. It may be a list of steps, a design on paper, a computer printout or an electronic file. You must make sure that you keep all of these as each of them will earn you marks in your assessment.

Tick the box beside each stage when you have completed it. Make sure that you put any paper produced at each stage in your project folder right away.

Text to be entered

The senior volleyball team has just won the district league. In the last match of the season, they had to beat their nearest rivals, Wilton High School.

In an exciting contest, all players were on their best form and the match was won by two games to one. The first game was very close and at one stage Belstaff were six points behind but they fought back strongly to eventually win by two points.

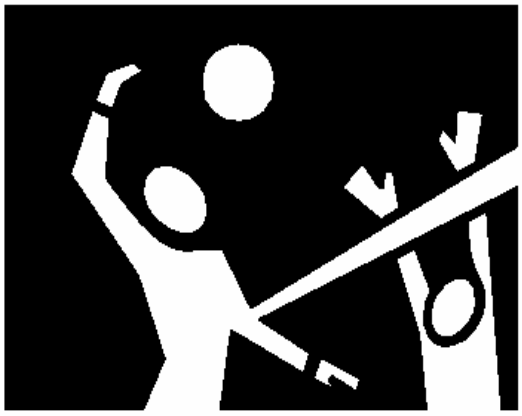
The second game was not so good. Wilton took an early lead again but this time we could not fight back and eventually we lost by seven points.

The third game was completely different. Belstaff were far too good for the opposition and they cruised to an easy win.

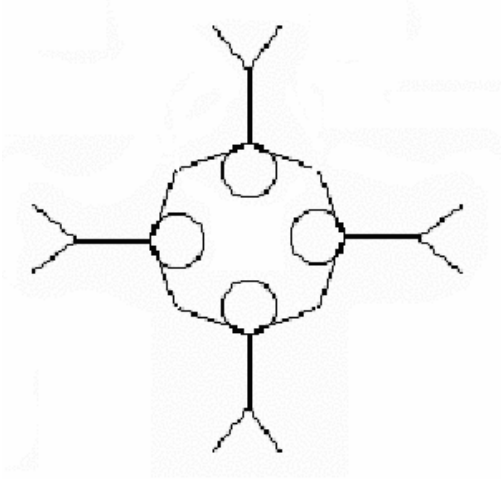
This performance was extra special as it was the first time that Belstaff have ever beaten Wilton as well as the first time the school has won this particular league. The head teacher is delighted and congratulated the team and the PE Department for all of their work preparing the team.

The senior team this year has already won a regional trophy and is in the last 16 of the Scottish Cup. This makes this year the most successful for volleyball ever. Hopefully they will maintain their excellent form and more silverware will arrive at the school in the near future.

Picture to be Captured



Belstaff Academy Crest, to be created



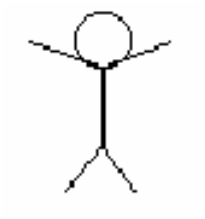
Intermediate 1 Computing Studies

Candidate answer grid

Name _____ **Date** _____

Stage	Task	Done (✓)
1	You have to enter the piece of text from the 'items' page. You must make sure it is correct and without any spelling errors. Name the type of software that you are going to use to enter the text. Software used: _____ Name the feature of the software that you are going to use to ensure that there are no spelling errors. Name of feature: _____	
2	Enter the text given on the 'items' page ensuring that it is entered correctly. Choose a font similar to the one used on the 'items' page and use font size 14.	
3	Save your file. Note the name of the file here. Name of file: _____	
4	Print the file and put it into your project folder.	
5	An error has been made in the text. It was not the *senior* team, but the *junior* team that has won the league. Describe the most suitable steps for making this change to the text. _____ _____ _____ _____ _____ _____ _____	

Stage	Task	Done (✓)
6	Carry out the change using the method described.	
7	Now you have to capture the graphic on the 'items' page. The graphic must not take up too much space as it needs to fit onto a floppy disk. Name the hardware device you are going to use to capture the graphic. Name of hardware device: _____ Name the type of file that you will save the graphic as. Type of file: _____	
8	Describe the steps you need to take to scan in the picture such that it will easily fit onto a floppy disk. _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	
9	Capture the picture and save it using an appropriate filename. Note the name of the file below. Name of file: _____	

Stage	Task	Done (✓)
10	Find out the size of the graphic file. Note it below and state whether it will fit onto a floppy disk. Size of file: _____ State whether the file will fit onto a floppy disk. Will the file fit on a floppy disk? _____	
11	The crest for Belstaff Academy is on the 'items' page. It is created using a single graphic shown here:  Name the piece of software you are going to use to create this graphic. Name of software: _____ Describe how you are going to create it. _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	
12	Create this graphic using the method you have described.	

Stage	Task	Done (✓)
13	Save your file. Note the filename here: Name of file: _____	
14	Print the file and put it into your project folder.	
15	The text file and the two graphic files that you have saved now have to be inserted into a document. The document will also require: • The title of the newsletter, " The Belstaff Informer". • A banner headline for the volleyball story, " More Volleyball Success for Belstaff". • Text arranged into three columns Name a suitable piece of software that you should use to create this document. Name of software: _____	
16	Design the layout for you newsletter in the space below. Remember to include all the parts mentioned in Section 15. Get your teacher/lecturer to check your design and then put it into your project folder.	

Stage	Task	Done (✓)
17	Create you newsletter. Remember to stick to your design.	
18	Save the newsletter. Note the name of the file here. Name of file: _____	
19	Print the file and put it into your project folder.	

END OF COURSEWORK

Marking guidelines

Name _____ **Date** _____

Stage		Max	Actual	Comment
1	Application correctly named	1,0		
	Feature of software correctly named	1,0		
2	Chooses suitable font	1,0		
	Correct font size	1,0		
	Correct use of spell checker	2,1,0		
3	Save the text file	1,0		
4	Prints the file	1,0		
5	Description of method used to change words	2,1,0		
6	Correct use of this method	2,1,0		
7	Names hardware device	1,0		
	Names file type	1,0		
8	Description of method of capturing graphic	2,1,0		
	States how graphic will be scanned such that it fits on a floppy disk	2,1,0		
9	Captures graphic	2,1,0		
	Saves graphic	1,0		
10	Notes size of graphic file	1,0		
	State whether it will fit on a floppy disk	1,0		
11	Identifies suitable software	1,0		
	Description of method of creating graphic	2,1,0		
12	Create single graphic	1,0		
	Use of appropriate tools to create the final graphic	2,1,0		
13	Saves the graphic file	1,0		
14	Prints the file	1,0		
15	Selects suitable software	1,0		
16	Designs report	2,1,0		
17	Title correctly inserted	1,0		
	Banner headline correctly inserted	1,0		
	Puts text into 3 columns	1,0		
	Graphics inserted correctly	1,0		
	Saves file	1,0		
	Prints file	1,0		
	Total	**40**		

Notes: where marks are allocated as 2,1,0:

2 = achieved successfully without assistance
1 = achieved partially without assistance, or completed with some assistance/ hints
0 = not achieved, or completed only with significant assistance.