

**2005 Computing Studies**

**Standard Grade – Credit**

**Finalised Marking Instructions**

**These Marking Instructions have been prepared by Examination Teams for use by SQA Appointed Markers when marking External Course Assessments.**

		KU	PS
1. (a)	(i)	• 160 (bytes)	1
	(ii)	• 160 * 10000 = 1,600,000 bytes • (number of Kbs = )1600000/1024 = 1562.5 (OR 1600000/1000 = 1600) <b>no mark for ÷ by 1.44</b> • (number of Mbs = )1562.5/1024 = ~1.5 (OR 1600/1000 = 1.6) • number of disks = 2	
<b>Correct answer will always get full marks</b>		Accept an answer using 1000 instead of 1024. Full marks for correct answer with no working. Do NOT penalise for carrying over error from question 1(a)(i) above.	4
Only 1 mark for correct/up to date	(b) (i)	1 mark for any of the bullet points below (max 2 marks) • obtain and process the data fairly and lawfully • register the purposes for which they hold it • not use or disclose the information in a way contrary to these purposes • only hold information that's adequate, relevant and not excessive for the purposes • only hold accurate information and, where necessary, keep it up-to-date • don't keep the information any longer than necessary • allow individuals access to their information and, where appropriate, correct or erase the information • take appropriate security measures	2
	(ii)	1 mark for any of the bullet points below (max 2 marks) • to check to see if an organisation holds information about you • to see a copy of the information • to have any incorrect or out-of-date information amended • to claim compensation for damages due to misuse	2
Allow "candidate changes incorrect information"	(c) (i)	1 mark for each of the bullet points below (max 2 marks) • same letter sent to many people—idea of fixed part (1) • the only difference being the personal details—idea of variable part (1)	2
	(ii)	1 mark for each of the bullet points below (max 3 marks) • complex search/query/find/filter—or notion of complex search • Network = Talkfone or contains Talkfone • (AND) Town = Newtown or contains Newtown	3
	(iii)	mailmerge merge ✗	1
		7	8

KU	PS
1	
1	1
	1
	1
	2
2	
2	
1	
7	5

2. (a) 1 mark for any of the bullet points below (max 1 mark)

- computer is more accurate
- checks water level at all times
- saves money on wages
- any suitable (eg safety aspects, efficiency **with** reason)

(b) (i) sensor

(ii) changed (from analogue) to digital — machine code ~~X~~  
binary ✓  
0s and 1s ✓

(iii) closed loop

(c) (i) 1 mark for any of the bullet points below (max 1 mark)

- language written specifically for task
- language more suited to controlling system
- contains specialised commands

(ii) 1 mark for any of the bullet points below (max 2 marks)

- speed of loading
- less liable to corruption (virus)
- cannot be (easily) erased accidentally or deliberately
- permanent storage medium

(d) B. ISPs generally provide e-mail accounts

D. Communications and Browser software is needed for Internet access

(e) (i) 1 mark for any of the bullet points below (max 2 marks)

**not accepting  
just Arithmetic  
and Logic Unit**

- performs all the arithmetical operations OR calculations
- performs all logical operations OR comparisons on any data passed to the processor

(ii) 1 mark for any of the bullet points below (max 1 mark)

**evidence needed  
for “running”  
or “monitoring”**

- supervises the execution of the program instructions inside the processor
- controls timing of events in processor

3. (a) (i) copy repeated ✗  
repeated in context ✓  
fill down/across in context ✓
- (ii) relative
- (b) (i)  $D4 \leq 10$       0       $D4 * B1$
- \* All  $\times$  instead of \* get mark    =IF     $D4 \geq 10$      $D4 * B1$       0
- (1)      (1)      (1)      (1) ignore division by 10 or obvious space
- (ii) B1
- (iii) 1 mark for any of the bullet points below (max 1 mark)
- cell protection
  - lock cells
  - use password
- (c) (i) 1 mark for any of the bullet points below (max 1 mark)
- style or formatting applied to the cell or contents
  - appearance of contents of cell
  - characteristics of cell, eg width, colour etc
- (ii) 1 mark for any of the bullet points below (max 1 mark)
- alter to currency (NOT money or £s)
  - any appropriate style or format, eg bold, underline
- (d) Dynamic (1) with valid reason (1)
- table (in report) would be updated (automatically)
  - table always changes      **(2, 1, 0)**
- If Static, then need valid reason for **both** marks
- permanent record required for each month
- NOT** table stays the same      **(2, 0)**

KU	PS
1	1
	4
	1
	1
1	
	1
	2
2	10

	KU	PS
4. (a) 1 mark for either of the bullet points below (max 1 mark)		
• computed field		
• calculated field	1	
(b) (i) 1 mark for either of the bullet points below (max 1 mark)		
verification ✗		
• ensures that data is valid		
• to check that the data has been <b>entered</b> correctly (NOT data is correct!)	1	
(ii) • from any of the <b>other digits</b> in the code	1	
(c) 1 mark for each of the bullet points below (max 2 marks)		
• random access		
• fast access times required OR immediate access/retrieval needed		2
(d) • most recent backup is child		
<b>No mark for just mentioning grandfather/father/son</b>		
• child becomes parent, parent becomes grandparent		
• idea of <b>rotation</b> —grandparent deleted and new child saved in place (accept clear diagram) (the word rotation is needed for 3rd mark) (notion of)	3	
(e) (i) 1 mark for any of the bullet points below (max 1 mark)		
• terminal away from the processor		
• terminal which is not located near the computer processing the data		
• terminal with no independent processing power	1	
(ii) 1 mark for each of the bullet points below (max 2 marks)		
• many people (can use the computer)		
<b>This will always get 1 mark</b> — * • at the same time/at the one time*	2	
(iii) customers will be buying train tickets from different call-centre employees at the same time (answer must relate to question)		1
(f) 1 mark for any of the bullet points below (max 3 marks)		
• card details entered (scanned or numbers input)		
• bank contacted		
• payment authorised		
• transaction made/money transferred		
	3	<b>any 3 out of 4</b>
(g) 1 mark for any of the bullet points below (max 2 marks)		
• change resolution (dots per inch)		
• change font		
• increase size of icons/fonts/cursor		
• change colour scheme		
• adjust brightness/contrast		
(any suitable—must be software based)		2
	12	5

KU	PS
	2
	2
1	
	1
	1
	1
	2
	2
	2
8	8
36	36

5. (a) 1 mark for any of the bullet points below (max 2 marks)

- more specialised/sophisticated functions
- saves money—no redundant packages
- less memory needed to run—only one application
- less backing storage needed

(b) 1 mark for any of the bullet points below (max 2 marks)

- (size of) main memory
- correct version of OS (OS may be incompatible)
- (adequate) processor speed      check graphics card is suitable ✓
- (sufficient) backing storage      internet access **with reason** ✓

(c) **Copyright** (Design & Patents) Act

(d) (i) 1 mark for any of the bullet points below (max 1 mark)

- information/tips (given by the program)
- quick reference guide (while using computer)
- (looking up information)

(ii) lessons/exercises on features/step by step guide

(iii) 1 mark for any of the bullet points below (max 1 mark)

- can be used by different **types** of computer system
- can be used by different computer platforms

(iv) 1 mark for any of the bullet points below (max 2 marks)

- large storage capacity
- not easily damaged
- cannot alter software
- cost—cheap medium
- wide availability of CD drives
- easily mass produced

portable ✗

(e) (i) 1 mark for each of the bullet points below (max 2 marks)

- number of different programs
- running at the same time/concurrently

(ii) 2 marks for any of the bullet points below (max 2 marks)

- processor needs to be able to select hardware devices for tasks
- devices must be connected and disconnected as different resources are required
- devices allocated according to requirements of programs

(iii) 1 mark for each of the bullet points below (max 2 marks)

- (main memory organised as) separate storage locations
- (each having) unique/individual address

1 mark for addressability

lots of different tasks need to be handled at once

**Tough Question**

if any answer has a sensible point give it a mark

Standard Grade Computing Studies

Marking Grid

Candidate's Name

Date of Birth

	Element 1 KU	Element 2 PS		Element 1 KU	Element 2 PS
1 (a) (i)		1 0	4 (a)	1 0	
(a) (ii)		4 3 2 1 0	(b) (i)	1 0	
(b) (i)	2 1 0		(b) (ii)	1 0	
(b) (ii)	2 1 0		(c)		2 1 0
(c) (i)	2 1 0		(d)	3 2 1 0	
(c) (ii)		3 2 1 0	(e) (i)	1 0	
(c) (iii)	1 0		(e) (ii)	2 1 0	
			(e) (iii)		1 0
			(f)	3 2 1 0	
			(g)		2 1 0
2 (a)	1 0				
(b) (i)	1 0				
(b) (ii)		1 0			
(b) (iii)		1 0			
(c) (i)		1 0	5 (a)		2 1 0
(c) (ii)		2 1 0	(b)		2 1 0
(d)	2 1 0		(c)	1 0	
(e) (i)	2 1 0		(d) (i)	1 0	
(e) (ii)	1 0		(d) (ii)	1 0	
			(d) (iii)	1 0	
			(d) (iv)	2 1 0	
			(e) (i)	2 1 0	
			(e) (ii)		2 1 0
			(e) (iii)		2 1 0
3 (a) (i)	1 0				
(a) (ii)		1 0			
(b) (i)		4 3 2 1 0			
(b) (ii)		1 0			
(b) (iii)		1 0			
(c) (i)	1 0				
(c) (ii)		1 0			
(d)		2 1 0			

[END OF MARKING INSTRUCTIONS]