SCOTTISH
QUALIFICATIONS
AUTHORITY

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) **no mark for ÷ by 1·44** • (number of Mbs =)1562.5/1024 = ~1·5 (OR 1600/1000 = 1·6) • number of disks = 2		
		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**
	(*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to see if an organisation holds information about you • to see a copy of the information • to have any incorrect or out-of-date information amended • to claim compensation for damages due to misuse	**2**	
	(*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**

Correct answer will always get full marks

Only 1 mark for correct/up to date

Allow "candidate changes incorrect information"

	KU	PS
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)	**1**	
(*b*) (i) sensor	**1**	
(ii) changed (from analogue) to digital — machine code ✗ binary ✓ 0s and 1s ✓		**1**
(iii) closed loop		**1**
(*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		**1**
(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		**2**
(*d*) **B.** ISPs generally provide e-mail accounts **D.** Communications and Browser software is needed for Internet access	**2**	
(*e*) (i) 1 mark for any of the bullet points below (max 2 marks) • performs all the arithmetical operations OR calculations • performs all logical operations OR comparisons on any data passed to the processor **not accepting just Arithmetic and Logic Unit**	**2**	
(ii) 1 mark for any of the bullet points below (max 1 mark) • supervises the execution of the program instructions inside the processor • controls timing of events in processor **evidence needed for "running" or "monitoring"**	**1**	
	7	**5**

							KU	PS
3.	(*a*)	(i)	copy	repeated ✗ repeated in context ✓ fill down/across in context ✓			**1**	
		(ii)	relative					**1**
	(*b*)	(i)		D4≤10	0	D4*B1		
* All × instead of * get mark			=IF	D4≥10	D4*B1	0		
			(1)	(1)	(1)	(1) ignore division by 10 or obvious space		**4**
		(ii)	B1					**1**
		(iii)	1 mark for any of the bullet points below (max 1 mark) • cell protection • lock cells • use password					**1**
	(*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				**1**	
		(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					**1**
	(*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)**					**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 **entered** correctly (NOT data is correct!)	**1**	
(ii) • from any of the **other digits** 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 **No mark for just mentioning grandfather/ father/son** • child becomes parent, parent becomes grandparent • idea of **rotation**—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) **This will always get 1 mark** — * • 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 **any 3 out of 4** • transaction made/money transferred	**3**	
(*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
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		**2**
	(*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** ✓		**2**
	(*c*) **<u>Copyright</u>** (Design & Patents) Act	**1**	
	(*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)	**1**	
	(ii) lessons/exercises on features/step by step guide	**1**	
	(iii) 1 mark for any of the bullet points below (max 1 mark) • can be used by different **<u>types</u>** of computer system • can be used by different computer platforms	**1**	
	(iv) 1 mark for any of the bullet points below (max 2 marks) • large storage capacity portable ✗ • not easily damaged • cannot alter software • cost—cheap medium • wide availability of CD drives • easily mass produced	**2**	
	(*e*) (i) 1 mark for each of the bullet points below (max 2 marks) • number of different programs • running at the same time/concurrently	**2**	
	(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		**2**
	(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		**2**
		8	**8**
		36	**36**

lots of different tasks need to be handled at once

<u>Tough Question</u>
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
1 (a) (i)		1 0
(ii)		4 3 2 1 0
(b) (i)	2 1 0	
(ii)	2 1 0	
(c) (i)	2 1 0	
(ii)		3 2 1 0
(iii)	1 0	
2 (a)	1 0	
(b) (i)	1 0	
(ii)		1 0
(iii)		1 0
(c) (i)		1 0
(ii)		2 1 0
(d)	2 1 0	
(e) (i)	2 1 0	
(ii)	1 0	
3 (a) (i)	1 0	
(ii)		1 0
(b) (i)		4 3 2 1 0
(ii)		1 0
(iii)		1 0
(c) (i)	1 0	
(ii)		1 0
(d)		2 1 0

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

[END OF MARKING INSTRUCTIONS]