Mark Scheme (Results)

Summer 2010

IGCSE Information and Communication Technology

(4385) Paper 2H

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.

- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.

- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.

- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.

- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.

- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.

- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.

- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Question Number	Answer	Mark

1(a)	NOTE. Maximum of 6 marks if the form has space for written entries, e.g. signature
	
	1 mark for each of:
	• name
	• email address
	• password and confirm password
	• any two payment method fields e.g. type of payment, credit / debit
	        card type / use paypal, google checkout or similar
	        card number / account name
	        expiry date / valid from date
	
	To a maximum of 4 marks
	
	• form title
	• company name / logo
	• submit details method
	• cancel method
	• method of leaving the page eg back button
	• on screen instructions for the user
	
	To a maximum of 4 marks
		(8)

Question Number	Answer	Mark
1(b)(i)	Look for the ideas: Security measure to prevent others using the account / fraud / identity theft To speed up entry to the site next time 1 mark	**(1)**

Question Number	Answer	Mark
1(b)(ii)	Look for the ideas: Password may be **** so need to check it is what the person thought it was In case of typo on first password 1 mark	**(1)**

Question Number	Answer	Mark
2 (a)(i)	fibre-optic	(1)

Question Number	Answer	Mark
2 (a)(ii)	fibre-optic	(1)

Question Number	Answer	Mark
2 (a)(iii)	WiFi	(1)

Question Number	Answer	Mark
2 (b)	Answers may include: Web hosting sale of domain names / web site names news groups news / weather chat rooms messaging service / sms customer support any reasonable Internet based service **1 mark each to a maximum of 3**	(3)

Question Number	Answer	Mark
2 (c)	Look for the ideas: router may have built in firewall / filter other reasonable add on, describes what firewall / filter does. router knows which computer incoming messages / data should go to, keeps data for each computer separate router holds names / numbers / ID of each computer in the network, can allocate IDs / DHCP, can keep data for each computer separate **2 x 1 mark**	(3)

Question Number	Answer	Mark
3 (a)		(3)

Question Number	Answer	Mark
3 (b)	Factors are: frequency of backup e.g. every day / hourly, so only lose small amount of changes choice of media e.g. DVD / network drive, big enough for 100 Mb storage of backup media e.g. on-line / fireproof safe, for quick recovery / secure timings e.g. overnight / after close of business, no disruption to work 1 mark for each factor 1 mark for each explanation To a maximum of 6 marks.	(6)

Question Number	Answer	Mark

3 (b)(i)	Answers may include:
	
	Logon / user names.
	    Only authorised can logon to (database) system
	
	Access levels.
	    Only authorised groups (access level) can see records
	
	Password / encryption on database / records,
	    Only authorised know the password
	
	1 mark for method
	1 mark for explanation
	
	 2 x 2 marks
		(4)

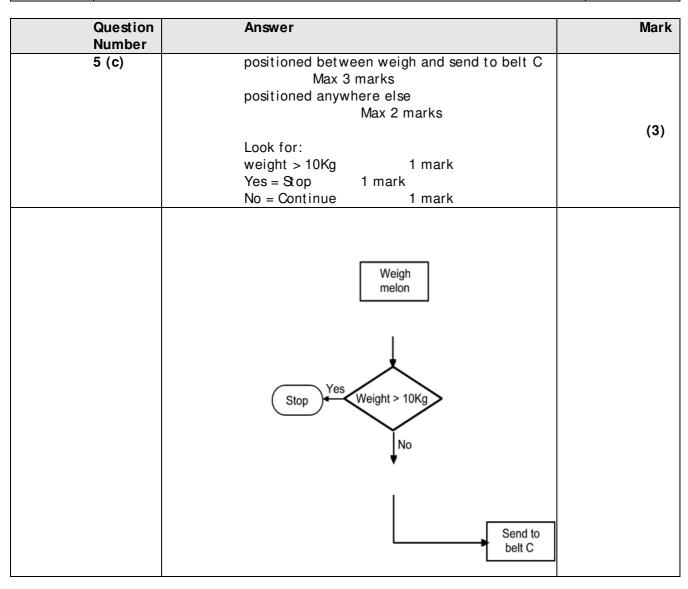| Question Number	Answer	Mark
3 (b)(ii)	Answers may include: Firewall, prevents outsiders seeing / entering the network Anti virus, prevents trojans allowing unauthorised entry / sending data out 1 mark for method 1 mark for explanation	(2)

Question Number	Answer	Mark
4 (a)	Answers may include: quotation marks, to keep 1960s and music together + sign, so search includes 1960s and music extra words, add British and / or pop to get type of music needed search only native language, to get rid of foreign sites search only own country / british, to get rid of foreign sites search for individual years, for more specific sites search for individual people / bands, for more specific sites any other reasonable method with an explanation. 1 + 1 for any 3 methods. Maximum 6 marks	**(6)**

Question Number	Answer	Mark
4 (b)(i)	Answers may include: on-line encyclopedia (pop music) forums on-line music magazines fan club web sites (for 1960s pop groups) any sensible on-line source 1 mark per source to a maximum of 2.	**(2)**

Question Number	Answer	Mark
4 (b)(ii)	Look for the idea: Wiki entries may be written by anyone so: - possibility of deliberate false entries - entries may be altered / vandalised - possibility of mistaken entries 1 mark any sensible explanation 1 mark	**(2)**

Question Number	Answer	Mark
5 (a)	In any order. 1 mark for a weight **and** reason. Weight 1 less than 1Kg, typical data for belt A Weight 2 1Kg / 0.999 Kg, extreme data for A - B Weight 3 over 1 Kg and less than 2 Kg, typical data for belt B Weight 4 2Kg / 1.999Kg, extreme data for B - C Weight 5 over 2Kg, typical data for belt C 5 marks.	**(5)**

Question Number	Answer	Mark
5 (b)	Look for the ideas: Lower limit is 0Kg, i.e no melon / cannot have negative melons. No upper limit to scales / all melons over 2Kg are C / melons don't grow too big for the machine to handle. 1 mark for lower limit 1 mark for upper limit	**(2)**

Question Number	Answer	Mark

5 (c)	positioned between weigh and send to belt C
	               Max 3 marks
	positioned anywhere else
	               Max 2 marks
	
	Look for:
	weight > 10Kg 1 mark
	Yes = Stop 1 mark
	No = Continue 1 mark
		(3)

Question Number	Answer	Mark
6	Possible checks are: range, format, length, presence, type, check digit, The marks are for a description and an example which match the check given by the candidate. For each of three checks. 1 mark for a name plus description. 1 mark for a sensible example to do with customer details or an application for membership. Total 6 marks	**(6)**

Question Number	Answer	Mark
7	1 mark for a description of an appropriate and business relevant task for a piece of software. e.g. database keeping customer / supplier records spreadsheet generating invoices / doing company accounts desk top publisher making advertising brochure / leaflet web site writer (making a web site) to advertise the business / e-commerce art package producing art work for a brochure / web site multi-media presentation package (making a presentation) to put in the shop to show services offered Total 6 marks	**(6)**

Question Number	Answer	Mark

8 (a)	Key field Product code 1mark
	
	Explanation.
	Content is different for each record / unique 1 mark
	product name and price fields also unique 1 mark
	
	Plus any 2 of:
	      price field may change
	      name field has multi-part / repeating parts
	      code is short / fixed length so easy to validate
	      any sensible reason why other fields not suitable
	                        2 marks
		(4)

Question Number	Answer	Mark

8 (b)	any 2 of:
	
	      reduce storage space
	      reduce display space
	      easier validation
	
	2 marks
		(2)

Question Number	Answer	Mark
8 (c)	Code AMW 408 1 + 1 2 marks	**(2)**

Question Number	Answer	Mark
8 (d)	Look for the ideas: Recommended use field has multiple entries. Searching that field may not find 2nd / 3rd / all entries Split Recommended use into 3 new fields (laser, copier, inkjet) So that search now looks for single value So that search for 1 / more paper types looks in dedicated fields Max 4 marks	**(4)**

Question Number	Answer	Mark
9 (a)(i)	SUM(B3…B8) or SUM(B3…B9) 1 mark	**(1)**

Question Number	Answer	Mark
9 (a)(ii)	B10 * B11 1 mark	**(1)**

Question Number	Answer	Mark
9 (b)(i)	MAX , (B10...G10) 2 marks	**(2)**

Question Number	Answer	Mark
9 (b)(ii)	Look for: conditional formatting 1 mark use of an IF statement 1 mark in cells B10 to G10 1 mark check if cell holds the MAX / H9 figure 1 mark e.g. She should put an IF statement in the 'Total per menu' cells / B10 to G10, that looks to see if the cell is the biggest number / MAX / H9, and uses conditional formatting if it is. Or conditional format in B10…G10, If Cell = H9, set style to xxx	**(4)**

Question Number	Answer	Mark
9 (c)	Link the graph to the spreadsheet by a macro / as an (OLE) object 1 mark So macro runs / OLE object links automatically when document opens 1 mark	**(2)**

Question Number	Answer	Mark
10 (a)	255 / 256 1 mark Look for the ideas: 1 byte holds 256 / 0 - 255 numbers 1 number per programme or zero not used so 1 byte holds 255 numbers 1 number per programme 1 mark	**(2)**

Question Number	Answer	Mark

10 (b)(i)	1000 seconds / 16 min 40 sec / 16.667 min,
	                              assuming 1000 Mb = 1Gb
	
	or
	
	1024 seconds / 17 min 4 sec / 17.0667 min ,
	                              assuming 1024 Mb = 1 Gb
	                   2 marks
		(2)

Question Number	Answer	Mark

10 (b)(ii)	Video / TV files must be compressed (NOT ZIPPED) 1 mark
	plus any of:
	        compression ratio of about 1 - 80
	        using a codec
	        using MPEG / other compressed video file type 1 mark
	                     Total 6 marks
		(6)

Question Number	Answer	Mark
11 (a)	Diagram is a star 5 PCs shown and at least one labelled Server shown and labelled hub / switch shown and labelled cables shown and labelled 1 mark each to a maximum of 4 marks	(4)

Question Number	Answer	Mark

11 (b)(i)	Answers may include:
	    Use for telephone / VOIP / voice messaging / video conferences
	    so saves cost of phone calls
	
	    Use for video conferences
	    so saves cost of travel
	
	    Use for remote admin / software installation
	    so saves cost of travel
	
	    Use for centralised data storage
	    Saves costs on bulk storage media
	
	    Any other sensible method with a reason for money saving.
	
	2 x 2
	Maximum 4 marks
		(4)

Question Number	Answer	Mark
11 (b)(ii)	Look for the ideas: All eggs in one basket / all data in one place so may lose everything keep duplicates of data / use generation system Time taken to transfer all the data / many offices need to send data to single location Time schedule for each office / data compression or zipping Any reasonable problem with a solution. 1 mark for a problem 1 mark for a relevant solution	(2)