

Mark Scheme (Results) Summer 2010

IGCSE

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	Answer	Mark
Number		
1(a)	NOTE. Maximum of 6 marks if the form has space for written entries, e.g. signature 1 mark for each of:	
	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 	(8)
	To a maximum of 4 marks	

Question	Answer	Mark
Number		
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)
	1 mark	

Question	Answer	Mark
Number		
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	Answer	Mark
Number		
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	(3)
	2 x 1 mark	

Question	Answer	Mark
Number		
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	(6)
	To a maximum of 6 marks.	

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	(4)
	1 mark for method 1 mark for explanation	
	2 x 2 marks	

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

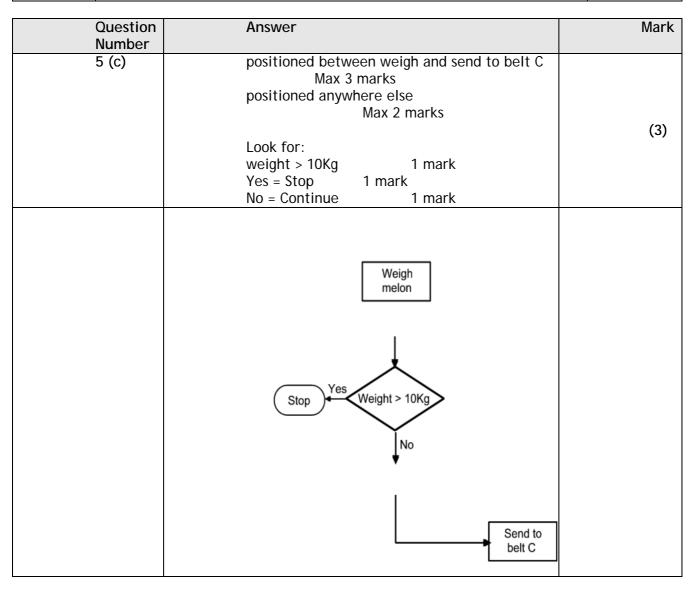
Question	Answer	Mark
Number		
Number 4 (a)	Answers may include: quotation marks, to keep 1960s and music together + sign, so search includes 1960s and music extra words, add British and / or pop to get type of music needed search only native language, to get rid of foreign sites search only own country / 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.	(6)
	Maximum 6 marks	

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	(2)
	1 mark per source to a maximum of 2.	

Question Number	Answer	Mark
4 (b)(ii)	Look for the idea:	
	Wiki entries may be written by anyone so:	
	1 Hidik	(2)
	any sensible explanation 1 mark	

Question	Answer		Mark
Number			
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	(5)
	Weight 5	over 2Kg, typical data for belt C	
		5 marks.	

Question Number	Answer	Mark
5 (b)	Look for the ideas: Lower limit is OKg, 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.	(2)
	1 mark for lower limit 1 mark for upper limit	. ,



Question	Answer	Mark
Number		
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.	(6)
	Total 6 marks	

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	(6)
	art package producing art work for a brochure / web site	(6)
	multi-media presentation package (making a presentation) to put in the shop to show services offered	
	Total 6 marks	

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

Question Number	Answer	Mark
	any 2 of	
8 (b)	any 2 of:	
	reduce storage space	
	reduce display space	
	easier validation	
		(2)
	2 marks	(2)

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

Question	Answer	Mark
Number		
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	(4)
	Max 4 marks	

Question Number	Answer	Mark
9 (a)(i)	SUM(B3B8) or SUM(B3B9) 1 mark	(1)

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

Question Number	Answer			Mark
9 (b)(i)	MAX ,	(B10G10)	2 marks	(2)

Question	Answer	Mark
Number		
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	(4)
	conditional format in B10G10, If Cell = H9, set style to xxx	

Question	Answer	Mark
Number		
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	Answer	Mark
Number	255 / 256 1 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	Answer	Mark
Number		
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	Answer		Mark
Number			
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		(6)
	using MPEG / other compressed video file type	1 mark	
	Total 6 marks		

Question	Answer	Mark
Number		
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	(4)
	1 mark each to a maximum of 4 marks	

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	Answer	Mark
Number		
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.	(2)
	1 mark for a problem 1 mark for a relevant solution	

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