



**General Certificate of Secondary Education  
June 2010**

**Information and Communication  
Technology**

**3522/H**

**Specification B  
Full Course  
Higher Tier**

**Final**

***Mark Scheme***

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

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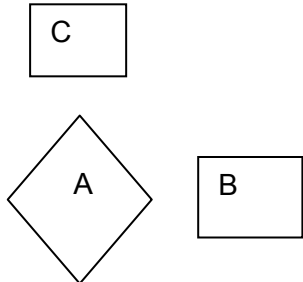
1	(a)		These points Bold Font size Spelling Checker	3 marks
1	(b)	(i)	This point B, Centred	1 mark
1	(b)	(ii)	This point D, Justified	1 mark
1	(c)		Any reasonable, for example Highlight paragraph A and select Cut + Position the cursor below paragraph B and select Paste, <i>1+1mark</i> Cut and paste, 1 mark	2 marks
1	(d)	(i)	This point E, Word art	1 mark
1	(d)	(ii)	This point C, Autoshape	1 mark
1	(d)	(iii)	This point F, Text box	1 mark
1	(e)	(i)	These points .bmp .gif	2 marks
1	(e)	(ii)	Any reasonable, for example .jpg NOT answers to 1ei NOT .pdf	1 mark
1	(f)		Any reasonable, for example An e-mail virus might be distributed. Allow 'virus' Someone might copy the secretary's signature and pretend to be the secretary and attempt to defraud the company Someone might intercept the e-mail then they would know the SWgold watch is in stock and could steal it from them	2 marks
			Total	15 marks

2	(a)		This point Spreadsheet Allow the names of software, for example, Excel	1 mark
2	(b)	(i).	This point A cell reference taken from: B2 to B7, C2 to C7; D9	1 mark
2	(b)	(ii)	This point A cell reference taken from: B2 to B7, D2 to D12	1 mark
2	(b)	(iii)	This point. The cell reference D5	1 mark
2	(b)	(iv)	This point The cell reference D8	1 mark
2	(b)	(v)	This point The cell reference D12	1 mark
2	(c)		Any reasonable, for example Advantages Clear layout Faster calculations You can use formulae The quotation can be edited to produce a quotation for any customer The plumber can rely on the software to produce accurate calculations Disadvantages The plumber must have access to a computer when producing a quotation The plumber has to be able to use the software The cost of the software	4 marks
2	(d)		These points The plumber should be working not playing on line games on the Internet The plumber's employer has told the plumber that the laptop computer should only be used to help the with the plumber's job	2 marks
2	(e)	(i)	These points Use antivirus software Only allow access to trusted websites	2 marks
2	(e)	(ii)	Any reasonable, for example Use a firewall Allow: Use a transaction log NOT answers from 2ei NOT security precautions unrelated to the download of malicious software from the Internet NOT passwords and user ids. NOT disconnect from the Internet	1 mark
			Total	15 marks

3	(a)		This point database	1 mark
3	(b)		Any reasonable, for example Address or telephone number + so that the doctor can contact the patient, <i>1+1mark</i> Allow: contact details+reason Date of Birth + so that the doctor can prescribe age related medicines more accurately, <i>1+1mark</i> NOT Age	4 marks
3	(c)		This point Table look-up	1 mark
3	(d)		These points A key field cannot be left blank A key field must be different in every record	2 marks
3	(e)		Any reasonable, for example Coded information can be input faster Coded information takes up less storage space on the hard disk Allow: The database takes up less space Coded information can be input more accurately	2 marks
3	(f)		These points, in this order D, descending A, Admission Date	2 marks
3	(g)	(i)	This point Both Bolton and Jackson	1 mark
3	(g)	(ii)	This point Both Janiak and Bolton	1 mark
3	(g)	(iii)	This point Both Jackson and Singh	1 mark
			Total	15 marks

4	(a)		Any reasonable, for example johnp@electro.sch.uk admin@hickleyhealth.co.uk	1 mark
4	(b)		Any reasonable, for example A spreadsheet A .jpg file	1 mark
4	(c)		These points When you reply to an e-mail, the e-mail is automatically addressed to the person who sent it to you When you forward an e-mail, you have to enter the e-mail address of the person you are sending it to	2 marks
4	(d)	(i)	This point A zipped file is compressed	1 mark
4	(d)	(ii)	Any reasonable, for example It can be uploaded quicker when attached to an e-mail. It may bypass restrictions on the size of files that can be uploaded It takes up less storage space on the hard disk NOT to compress it; NOT to make it smaller without qualification NOT It takes up less storage space without saying where	2 marks
4	(e)	(i)	This point When opened, the e-mail shows immediately that the home page is attractive	1 mark
4	(e)	(ii)	This point The e-mail is smaller and will upload and download faster	1 mark
4	(f)		These points A new e-mail message opens or a blank e-mail form opens The e-mail is automatically addressed to the owners You enter your message and click OK or send	2 marks
4	(g)		Any reasonable, for example Advantage You can compare a wider range of goods more easily You have access to the whole product range Disadvantage You have to wait for goods to be delivered You cannot be sure of the quality of the goods you are buying Someone might intercept your personal details	4 marks
			Total	15 marks

5	(a)	<p>These points Starts cutting at (1,2) and cuts line to (1,4) – 1 mark Completes cutting of 2x3 rectangle with no other marks or shading – 1 mark</p>	2 marks																					
5	(b)	<p>Any reasonable, for example This example of instructions to remove hole B follows the example in the question paper but can be applied to any other route. If it works, full marks</p> <table border="1" data-bbox="384 465 1310 987"> <tr> <td data-bbox="384 465 531 533">Up</td> <td data-bbox="531 465 1310 533">Includes Up, Down, Up in sequence and no others – 1 mark</td> </tr> <tr> <td data-bbox="384 533 531 566">Move 3</td> <td data-bbox="531 533 1310 566" rowspan="5">Arrives at hole and traverses one side successfully whether cut or otherwise – 1 mark</td> </tr> <tr> <td data-bbox="384 566 531 600">Right</td> </tr> <tr> <td data-bbox="384 600 531 633">Move 1</td> </tr> <tr> <td data-bbox="384 633 531 667">Down</td> </tr> <tr> <td data-bbox="384 667 531 701">Move 1</td> </tr> <tr> <td data-bbox="384 701 531 734">Left</td> <td data-bbox="531 701 1310 734" rowspan="5">Traverses the entire hole successfully whether cut or otherwise – 1 mark</td> </tr> <tr> <td data-bbox="384 734 531 768">Move 1</td> </tr> <tr> <td data-bbox="384 768 531 801">Left</td> </tr> <tr> <td data-bbox="384 801 531 835">Move 1</td> </tr> <tr> <td data-bbox="384 835 531 869">Left</td> </tr> <tr> <td data-bbox="384 869 531 902">Move 1</td> <td data-bbox="531 869 1310 902" rowspan="3">Correct completion – 1 mark</td> </tr> <tr> <td data-bbox="384 902 531 936">Up</td> </tr> <tr> <td data-bbox="384 936 531 987">To start</td> </tr> </table>	Up	Includes Up, Down, Up in sequence and no others – 1 mark	Move 3	Arrives at hole and traverses one side successfully whether cut or otherwise – 1 mark	Right	Move 1	Down	Move 1	Left	Traverses the entire hole successfully whether cut or otherwise – 1 mark	Move 1	Left	Move 1	Left	Move 1	Correct completion – 1 mark	Up	To start	4 marks			
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Up																								
To start																								
5	(c)	<p>Any reasonable, for example If it works, full marks</p> <table border="1" data-bbox="384 1093 1310 1684"> <tr> <td data-bbox="384 1093 531 1160">Up</td> <td data-bbox="531 1093 1310 1160">Includes Up, Down, Up in sequence and no others – 1 mark</td> </tr> <tr> <td data-bbox="384 1160 531 1193">Move 1</td> <td data-bbox="531 1160 1310 1193" rowspan="5">Arrives at shape and traverses two sides successfully whether cut or otherwise – 1 mark</td> </tr> <tr> <td data-bbox="384 1193 531 1227">Down</td> </tr> <tr> <td data-bbox="384 1227 531 1261">Move 4</td> </tr> <tr> <td data-bbox="384 1261 531 1294">Right</td> </tr> <tr> <td data-bbox="384 1294 531 1328">Move 2</td> </tr> <tr> <td data-bbox="384 1328 531 1361">Right</td> <td data-bbox="531 1328 1310 1361" rowspan="5">Traverses the notch whether cut or otherwise – 1 mark</td> </tr> <tr> <td data-bbox="384 1361 531 1395">Move 2</td> </tr> <tr> <td data-bbox="384 1395 531 1429">Left</td> </tr> <tr> <td data-bbox="384 1429 531 1462">Move 1</td> </tr> <tr> <td data-bbox="384 1462 531 1496">Right</td> </tr> <tr> <td data-bbox="384 1496 531 1529">Right</td> <td data-bbox="531 1496 1310 1529" rowspan="7">Correct completion – 1 mark</td> </tr> <tr> <td data-bbox="384 1529 531 1563">Move 2</td> </tr> <tr> <td data-bbox="384 1563 531 1597">Right</td> </tr> <tr> <td data-bbox="384 1597 531 1630">Move 3</td> </tr> <tr> <td data-bbox="384 1630 531 1664">Up</td> </tr> <tr> <td data-bbox="384 1664 531 1684">To start</td> </tr> </table>	Up	Includes Up, Down, Up in sequence and no others – 1 mark	Move 1	Arrives at shape and traverses two sides successfully whether cut or otherwise – 1 mark	Down	Move 4	Right	Move 2	Right	Traverses the notch whether cut or otherwise – 1 mark	Move 2	Left	Move 1	Right	Right	Correct completion – 1 mark	Move 2	Right	Move 3	Up	To start	4 marks
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Up																								
To start																								

5		d.	<p>These points Each label in its correct box, <i>1 mark per box</i></p> 	3 marks
5	(e)	(i)	<p>Any reasonable, for example It can repeatedly cut exactly the same shape Once set up, the programming can be stored and quickly re-used Reduces staff costs More accurate than manual cutting NOT It can work 24 hours per day without extra detail</p>	1 mark
5	(e)	(ii)	<p>Any reasonable, for example It could takes a long time to set up the cutter for the first shape The worker needs ICT skills to operate the cutter</p>	1 mark
			Total	15 marks



6	(a)	(i)	This point C, Mail merge	1 mark
6	(a)	(ii)	These points A list of DVDs that are available to rent A list of DVDs that each member has borrowed	2 marks
6	(a)	(iii)	Any reasonable, for example A list of current members NOT a list of ex-members' names and e-mail addresses or similar NOT answers to 6aii	1 mark
6	(b)	(i)	These points The text is too large to read comfortably There are spelling mistakes and grammatical errors	2 marks
6	(b)	(ii)	Any reasonable, for example The text is right justified The text does not use bullets/paragraphs/emphasis or similar to help employees make sense of it, 1 mark each NOT answers to 6bi	2 marks
6	(c)	(i)	These points As help in the software As a .pdf file saved on a USB memory stick	2 marks
6	(c)	(ii)	Any reasonable, for example On a website On a blog NOT answers to 6ci NOT a printed manual	1 mark
6	(d)	(i)	This point C, Implementation	1 mark
6	(d)	(ii)	This point D, Testing	1 mark
6	(d)	(iii)	This point B, Design	1 mark
6	(d)	(iv)	This point A, Specification	1 mark
			Total	15 marks

7	(a)	(i)	This point B, bar code reader	1 mark
7	(a)	(ii)	This point E, keyboard	1 mark
7	(a)	(iii)	This point C, book	1 mark
7	(b)		Any reasonable, for example Most people cannot read bar codes If the bar code cannot be read by the ICT system the librarian enters the number	2 marks
7	(c)	(i)	These points The code is data The code is qualitative	2 marks
7	(c)	(ii)	Any reasonable, for example Whether the condition of the book is judged as worn or good can vary from one person to another The code on the ICT system has not been updated recently The code was input incorrectly Allow: the pupil has damaged the book and does not want to pay for it or similar NOT: the librarian is picking on the pupil or similar	2 marks
7	(d)	(i)	This point B, the ICT technician	1 mark
7	(d)	(ii)	These points in any order E, the librarian F, pupils	2 marks
7	(e)	(i)	These points There are 2,000 pupils attending the school Pupils use the library to look for information to help with their homework	2 marks
7	(e)	(ii)	Any reasonable, for example The school library has at least 2000 books Matching books to pupils is more accurate/faster/easier NOT answers to 7ei	1 mark
			Total	15 marks

8	(a)	(i)	This point You can watch programmes after they have been on TV	1 mark
8	(a)	(ii)	Any reasonable, for example If you want to watch programmes later, you don't have to record them yourself You can pause and play You can watch foreign TV programmes You can watch at any time NOT answers to 8ai	1 mark
8	(a)	(iii)	These points If the Internet is too slow, the picture could be jerky	1 mark
8	(a)	(iv)	Any reasonable, for example If your Internet Service Provider (ISP) has a download limit, you are more likely to exceed it Allow: Video and audio may not be synchronised NOT answers to 8aiii NOT viruses	1 mark
8	(b)		These points At least one of modem, router or wireless access point shown in any order – <i>1 mark</i> + In order from external network point: modem, router, wireless access point – <i>1 mark</i> Star network topology centred on one of wireless access point, router or modem, with at least 3 laptops and a desktop computer – <i>1 mark</i> Shows at least one wireless connection from a computer <u>to the Internet</u> – <i>1 mark</i> Shows at least one wired connection from a computer <u>to the Internet</u> – <i>1 mark</i> Shows a printer, external hard disk, scanner or other reasonable hardware – <i>max 2 marks</i>	5 marks
8	(c)		Any reasonable, for example NOT ways already mentioned in the question. NOT TV You can play a very wide variety of different games from home. You can play with people located <u>all over the world</u> or you can talk to and see your friends in different parts of the world or similar. You can use ICT at any time you wish, 24/7 Using a dance mat you can follow a keep fit programme at home whereas otherwise you would have to go to a gym. You don't have to be at home to monitor your home for security purposes as you can do this from anywhere in the world. You can shop on line from home. You can do your banking on line from home. You can find out information without going to the library. You can work from home. Music on the computer/Internet NOT Video without an example. Must differ from TV, e.g. YouTube, podcasts NOT Films without an example. Must differ from TV, e.g. Blinkbox) Social networking or example (Facebook) E-mail or example (Outlook)	6 marks

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			Chat or example (MSN) NOT 'Communicate'	
				Total 15 marks