Mark Scheme (Results)

June 2010

GCSE

GCSE
Information and Communication Technology
(1185/3185) 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.

3185 /1185 H		
	SECTION A	
Question Number	Answer	Mark
1	C	1

Question Number	Answer	Mark
2	D	1

Question Number	Answer	Mark
3	B	1

Question Number	Answer	Mark
4	A	1

Question Number	Answer	Mark
5	D	1

Question Number	Answer	Mark
6	D	1

Question Number	Answer	Mark
7	A	1

Question Number	Answer	Mark
8	A	1

Question Number	Answer	Mark
9	C	1

Question Number	Answer	Mark
10	B	1

Question Number	Answer	Mark
11	C	1

Question Number	Answer	Mark
12	B	1

Question Number	Answer	Mark
13	D	1

Question Number	Answer	Mark
14	A	1

Question Number	Answer	Mark
15	D	1

Question Number	Answer	Mark
16	D	1

Question Number	Answer	Mark
17	C	1

Question Number	Answer	Mark
18	A Or B	1

Question Number	Answer	Mark
19	C	1

Question Number	Answer	Mark
20	A	1

	SECTION B	
Question Number	Answer	Mark
1(a)(i)	=B2+B2*0.1 (2,0) =B2+B2*10% (2,0) =B2+B2/100*10 (2,0) =B2+B2*10/100 (2,0) =B2*1.1 (2,0) =B2*110% (2,0) =B2/100*110 (2,0) =B2*110/100 (2,0) =B2+(B2/10) (2,0) =B2+B2/10 (2,0) **Allow** without = with SUM if it works if additional brackets included and the formula works	2

Question Number	Answer	Mark
1(a)(ii)	Replication (1) Fill down (1) **NOT** copy and paste	1

Question Number	Answer	Mark
1(b)	=IF(B5>=10,5,8) (3) =IF(B5>9.99,5,8) (3) =IF(B5<10,8,5)(3) =IF(B5<=9.99,8,5) (3) Completely correct with (3) Correct logic with incorrect syntax (2) Clearly used IF statement (1) / =if (1) If (0) Ignore "" as long as they are consistent. Candidates should be credited for a sensible Lookup response	3

Question Number	Answer	Mark
1(c)(i)	Method 1: Open report document (Must clearly be the specific document) (1) Open spreadsheet (1) Click <u>Insert</u> (1) <u>Select</u> the file / chart (1) Position chart(1) <u>Edit/manipulate</u>(1) <u>Re-size</u>(1) <u>Crop</u>(1) Method 2: Open report document (Must clearly be the specific document) (1) Open spreadsheet (1) <u>Select</u> / click on / <u>highlight</u> the chart (1) <u>Copy</u> and <u>paste</u> (1) Position chart (1) <u>Edit/manipulate</u> (1) <u>Re-size</u>(1) <u>Crop</u> (1)	4
	QoWC Reasonable English (1) / Good English (2) **1 mark** for 2 technical terms, spelt correctly, from: Technical terms underlined Good English for prose: Consistency – capitals and full stops < 3 spelling mistakes Good English for bullet points: Consistency – lower / upper at start & with / without full stops.	3

Question Number	Answer	Mark
1(c)(ii)	Macro / create a macro	1

Question Number	Answer	Mark
2(a)	Any 4 points illustrating the steps identified in a logical order from: A product's bar code is scanned / read (by a laser scanner on the till). (1) The information is sent to computer system to find the price. (1) The information is found on the database. (1) The price is sent back to the till / Price displayed (1) Added to the current sale. (1) The till prints an itemised receipt.(1) The computer reduces the recorded stock by one (1) Know how many are in stock /record of sales (1) To see if an item needs to be reordered / to see if an item's stock falls below a pre-set "reorder level" (1) An order for more stock is generated (1)	4

Question Number	Answer	Mark
2(b)(i)	Automatic stock control (1) Records sales / Up to date stock information (1) Tells when stock needs reordering(1) Automatic reordering / Saves time re-ordering manually (1) Finds trends in customer purchases (1) Fewer input errors (1) Faster data entry (1) Fewer stock check errors (1) Fewer staff needed (1) *Allow*: automatically works out the change (1)	2

Question Number	Answer	Mark
2(b)(ii)	Itemised receipt (1) Proof of purchase (1) Quicker transaction process/less time spent queuing (1) Accurate bill / correct change (1)	2

Question Number	Answer	Mark
3(a)	24/7 (1) Don't need to leave home/don't need to travel to the shop / access from anywhere(1) Know instantly if in stock (1) Immediate confirmation (1) Buying online can be cheaper / special offers (1) Comparing prices (1) Easier to browse (1) NOTE is about online ordering NOT web site in general	2

Question Number	Answer	Mark
3(b)	Reduction in staff /offices / shops /overheads (1) Website does not need staffing(1) Fewer errors in data entry (as entered by customers) (1) Wider customer base (1) Statistical analysis (1) Can receive orders 24/7 (1)	3

Question Number	Answer	Mark
3(c)	Send to mail server / ISP (1) Sent using modem /telephone line /broadband / telecommunication system / satellites (1) Via Internet (Accept WWW) (1) To recipient's mail server / ISP (1) To recipient's inbox (1)	4

Question Number	Answer	Mark
3(d)	Allocating / updating usernames and passwords (1) Access rights and permissions (1) Maintaining hardware (incl. peripherals) (1) Making sure the network is working properly(1) Installing / upgrading software (1) Security /OS, anti-virus / Internet filtering / DPA (1) Archiving / backup (1) Monitoring system performance (1) Training Staff (1) Helping customers at the in-store terminals (1)	3

Question Number	Answer	Mark
4(a)	**May have reason and example transposed** **Only allow reason once.** **Reason** Save time adding new page / reusable (1) **Example** don't have to redesign (1) don't have to enter fixed information (1) only add changing information eg new books / book signings(1) **Reason** Consistency (1) **Example** Fixed information always be included (1) logo always there (1) each page has same layout (1) **Reason** Corporate image / house style (1) **Example** Same colour scheme (1) logo & other info always included (1) **Reason** Easy for non specialists / newcomers to use (1) **Example** No need for training (1) Don't have to work out what to include / where to put information (1) **Reason** Fixed information is always given (1) **Example** Logo / company data always given (1) Allow 'less time to add new page because don't have to redesign' (2,0)	6

Question Number	Answer	Mark
4(b)(i)	Slow to download / long time to load / make website slow (1)	1

Question Number	Answer	Mark

4(b)(ii)	Compression / zipped files (1)	1

Question Number	Answer	Mark
4(b)(iii)	Copyright, Design and Patents Act (1) Accept Copyright Act	1

SECTION C		
Question Number	Answer	Mark

1. (a)	**Ease of use** - any 3 of:
	
	    Command buttons (1)
	    Sensible field lengths (1)
	    Coding (1)
	    Scroll bars (1)
	    Tick box (1)
	    Radio button (1)
	    Drop down menus (1)
	
	Personal information - **any 2 of**:
	
	    Title (1)
	    Post Code (1)
	    Contact No. (Allow only 1) (1)
	    E-mail address (1)
	    Additional names (Allow only once) (1)
	    Passport number (1)
	    Country / nationality (1)
	
	Flight Information – **Any 3 of**:
	
	    Destination To/From (1)
	    Flight single / return (1)
	    Flight class (1)
	    Number of people / Age bands (1)
	    Date(s) of travel (1)
	    Flexibility of dates (1)
	
	    Do not allow Date
	
	Allow ease of use marks even if the information is not required
		8

Question Number	Answer	Mark
1 (b)	Can **only** be one of two values with example(s) such as 'Yes - No' / 'True - False' (2) Can **only** be one of two values (1) More than one example (1) Can only be yes or no (0) Don't allow 'is a shortened version of yes / no'	2

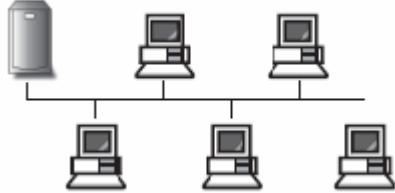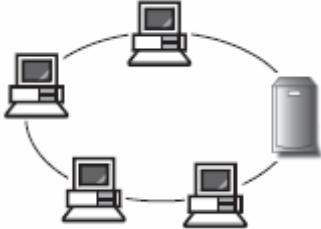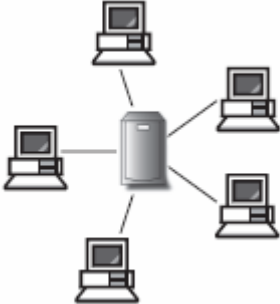| Question Number	Answer	Mark
1 (c)(i)	Customer ID	1

Question Number	Answer	Mark
1(c)(ii)	Uniquely identify a record (1) May be two customers with the same name/address (1) The only field which is unique (1)	2

Question Number	Answer	Mark
1 (d) (i)	Validation (1) A set of rules (1) Restricts what can be entered (1) On entry (1) Drop down lists, restricts entry (1,1) Input masks, set format (1,1) Allow an example e.g. length check of 5 characters on Customer ID (2,0) **Not** software – is in the question	2

Question Number	Answer	Mark
1 (d) (ii)	Verification (1) Proof reading /check by another person (1) Each of the above with explanation (2) Explanation without correct term (1) Allow double entry (1)	2

Question Number	Answer	Mark
1 (e) (i)	batch file / transaction file (1) master file (1)	2

Question Number	Answer	Mark
1 (e) (ii)	Serial access – magnetic tape (1) Direct access – DVD / CD / floppy disk / hard disk / pen drive / memory stick. Allow hard drive (1)	2

Question Number	Answer	Mark
2 (a)	Bus Network 	2
	Ring Network 	2
	Star network For each topology: 1 mark for correct configuration – if no indication of server no marks. 1 mark for indication of server and work station (Allow PC).	2

Question Number	Answer			Mark
2 (b)	STAR Advantage	Cable failure doesn't affect all workstations		1
		Less likely to slow down if many users		
		Workstation can be added without closing network / easy to add extra workstations		1
	Disadvantage	Needs a lot of cable / expense of cable		
	BUS Advantage	Small amount of cable		1
		If branch cable breaks rest of network unaffected		
	Disadvantage	Lots of users / lots of data can make the network slow		
		Failure in central cable stops all workstations		1

Question Number	Answer	Mark
2 (c)	Network interface card / NIC (1)	1

Question Number	Answer	Mark
2 (d)	Share documents / files / folders / data (1) Share peripherals / printers / scanners (1) Security can be centrally managed (1) Backup can be centrally managed (1) Files (to share) can be uploaded centrally (1) Software installed easily / faster / centrally (1) Can use any workstation / hotdesking (1) Communicate with other workstations (1) Monitor / control users (1) Only 1 internet connection needed (1) Email without internet connection / via intranet (1) **Allow** Terminals cheaper than stand-alones (1) **Not** share software	2

Question Number	Answer	Mark
2 (e)	Cost of installation (1) Need for network manager / technician (1) Increased need for security (1) Performance eg lots of users / sharing peripherals (1) Reliance on server (1) Users need to be trained (1) Viruses more likely / spread quickly (1) Accounts can be hacked by other users (1) **Not just** need for security – should be increased risk **Not** Increased risk of hacking from outside	1

Question Number	Answer	Mark
2 (f)	Need for suitable media (1) Factors considered – e.g. size / importance (1) Suitable media identified e.g.DAT tape, DAT drive / external hard drive / mirror disc / second server / remote backup (1) Need for frequency (1) Regular day / week / month / time (1) Need for suitable timing (1) Schedule when network not in use (1) Media labelled (1) Back-up checked when complete (1) Need for security (allow physical) / Media kept in a safe place (1) Media kept away from the server (1) Ancestral / Son, Father, Grandfather, good explanation (1,1)	6

Question Number	Answer	Mark
3(a)	Develops understanding of controls (1) Develops confidence (1) Safer* -if you crash no one is injured or fatalities (1) Safer must be qualified Weather conditions can be varied (1) Landing conditions can be varied (1) Able to deal with range of problems / situations (1) Crashing planes - costs of equipment etc (1) Simulator cheaper to run than plane /Running costs lower than fuel costs (1) Better for the environment/carbon footprint (1) Can train in bad weather (1) Performance can be evaluated (1) QWC **1 mark** for reasonable English **1 mark** for good English **1 mark** for spelling.	4

Question Number	Answer	Mark
3(b)	You know you are not going to get hurt so you may take unrealistic chances and not have enough confidence / over confident (1) You cannot simulate/predict every possibility (1)	2

Question Number	Answer	Mark
3 (c) (i)	Instant update (1) Each input takes of previous output (1)	1

Question Number	Answer	Mark
3 (c) (ii)	pilot alters controls / pilot action (1) signal sent to processor (1) input processed (1) changes output / image(1) the output becomes the input / completes loop (1) (Logical order starting at any point)	3

Question Number	Answer	Mark
4	**ALU** Where data is processed (1) Arithmetic part does calculations (1) Logic part makes decisions (1) Data is manipulated and acted on (1)	3
	IAS Current / active data (1) Current / active programs (1) Makes access to data much quicker (1) Temporarily holds user data (1) **Must** refer to data not files	3
	Control Unit Controls the hardware (1) Controls the software (1) Monitors hardware (1) Controls input and output of data (1) Controls flow of data through the CPU (1) Fetches instructions (1) Decodes the instructions (1) Executes instructions (1) Sends signals to rest of system (1) **Must** be function not example	3