

Mark Scheme (Results)

June 2010

GCSE

GCSE Information and Communication Technology (1185/3185) Paper 2H

Edexcel is one of the leading examining and awarding bodies in the UK and throughout the world. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers.

Through a network of UK and overseas offices, Edexcel's centres receive the support they need to help them deliver their education and training programmes to learners.

For further information, please call our GCE line on 0844 576 0025, our GCSE team on 0844 576 0027, or visit our website at www.edexcel.com.

If you have any subject specific questions about the content of this Mark Scheme that require the help of a subject specialist, you may find our Ask The Expert email service helpful.

Ask The Expert can be accessed online at the following link:

<http://www.edexcel.com/Aboutus/contact-us/>

Alternatively, you can speak directly to a subject specialist at Edexcel on our dedicated ICT telephone line: 0844 372 2186

Summer 2010

Publications Code UG024338

All the material in this publication is copyright
© Edexcel Ltd 2010

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)	<p>Method 1:</p> <p>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)</p> <p>Method 2:</p> <p>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)</p>	4
	<p>QoWC Reasonable English (1) / Good English (2) 1 mark for 2 technical terms, spelt correctly, from: Technical terms underlined</p> <p>Good English for prose: Consistency - capitals and full stops < 3 spelling mistakes</p> <p>Good English for bullet points: Consistency - lower / upper at start & with / without full stops.</p>	3

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

Question Number	Answer	Mark
2(a)	<p>Any 4 points illustrating the steps identified in a logical order from:</p> <p>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)</p>	4

Question Number	Answer	Mark
2(b)(i)	<p>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)</p> <p><i>Allow:</i> automatically works out the change (1)</p>	2

Question Number	Answer	Mark
2(b)(ii)	<p>Itemised receipt (1) Proof of purchase (1) Quicker transaction process/less time spent queuing (1) Accurate bill / correct change (1)</p>	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)	<p>May have reason and example transposed</p> <p>Only allow reason once.</p> <p>Reason Save time adding new page / reusable (1)</p> <p>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)</p> <p>Reason Consistency (1)</p> <p>Example Fixed information always be included (1) logo always there (1) each page has same layout (1)</p> <p>Reason Corporate image / house style (1)</p> <p>Example Same colour scheme (1) logo & other info always included (1)</p> <p>Reason Easy for non specialists / newcomers to use (1)</p> <p>Example No need for training (1) Don't have to work out what to include / where to put information (1)</p> <p>Reason Fixed information is always given (1)</p> <p>Example Logo / company data always given (1)</p> <p>Allow 'less time to add new page because don't have to redesign' (2,0)</p>	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)	<p>Ease of use - any 3 of:</p> <p>Command buttons (1) Sensible field lengths (1) Coding (1) Scroll bars (1) Tick box (1) Radio button (1) Drop down menus (1)</p> <p>Personal information - any 2 of:</p> <p>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)</p> <p>Flight Information - Any 3 of:</p> <p>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)</p> <p>Do not allow Date</p> <p>Allow ease of use marks even if the information is not required</p>	8

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

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

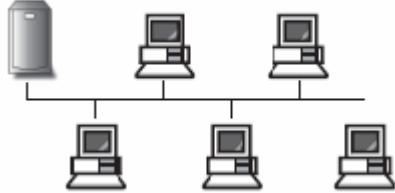
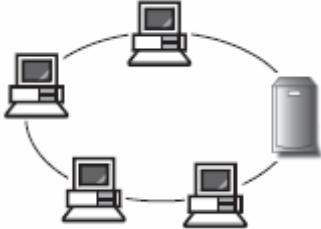
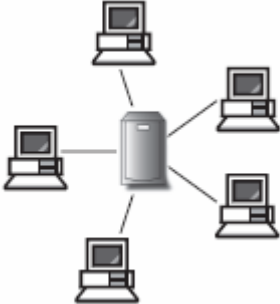
Question Number	Answer	Mark
1(c)(ii)	Uniquely identify a record (1) May be two customers with the same name/address (1) The only field which is unique (1)	2

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)	<p data-bbox="352 322 531 349">Bus Network</p>  <p data-bbox="352 696 544 723">Ring Network</p>  <p data-bbox="352 1104 536 1131">Star network</p>  <p data-bbox="352 1579 603 1606">For each topology:</p> <p data-bbox="352 1646 1177 1709">1 mark for correct configuration - if no indication of server no marks.</p> <p data-bbox="352 1713 1145 1740">1 mark for indication of server and work station (Allow PC).</p>	<p data-bbox="1257 322 1278 349">2</p> <p data-bbox="1257 696 1278 723">2</p> <p data-bbox="1257 1104 1278 1131">2</p>

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

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)	<p>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)</p> <p>Need for frequency (1) Regular day / week / month / time (1)</p> <p>Need for suitable timing (1) Schedule when network not in use (1)</p> <p>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)</p> <p>Ancestral / Son, Father, Grandfather, good explanation (1,1)</p>	6

Question Number	Answer	Mark
3(a)	<p>Develops understanding of controls (1) Develops confidence (1) Safer* -if you crash no one is injured or fatalities (1) Safer must be qualified</p> <p>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)</p> <p>QWC 1 mark for reasonable English 1 mark for good English 1 mark for spelling.</p>	4

Question Number	Answer	Mark
3(b)	<p>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)</p>	2

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

Question Number	Answer	Mark
3 (c) (ii)	<p>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)</p>	3

Question Number	Answer	Mark
4	<p>ALU Where data is processed (1) Arithmetic part does calculations (1) Logic part makes decisions (1) Data is manipulated and acted on (1)</p> <p>IAS Current / active data (1) Current / active programs (1) Makes access to data much quicker (1) Temporarily holds user data (1)</p> <p>Must refer to data not files</p> <p>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)</p> <p>Must be function not example</p>	<p>3</p> <p>3</p> <p>3</p>

Further copies of this publication are available from
Edexcel Publications, Adamsway, Mansfield, Notts, NG18 4FN

Telephone 01623 467467
Fax 01623 450481

Email publications@linneydirect.com

Order Code UG024338 Summer 2010

For more information on Edexcel qualifications, please visit www.edexcel.com/quals

Edexcel Limited. Registered in England and Wales no.4496750
Registered Office: One90 High Holborn, London, WC1V 7BH