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June Series

ASSESSMENT and QUALIFICATIONS ALLIANCE

Mark Scheme

Information and Communication Technology
Specification B
3522/F

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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Publications Department, Aldon House, 39, Heald Grove, Rusholme, Manchester, M14 4NA
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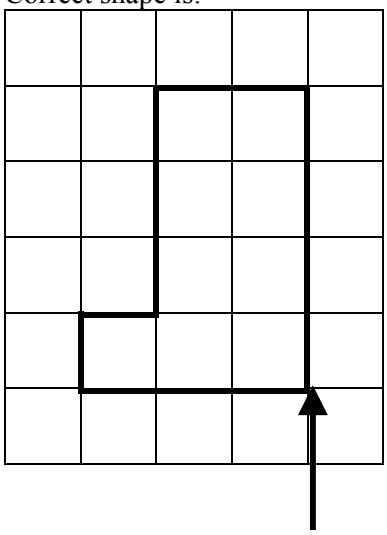
3522/F – Full Course Foundation Tier

1.		
a.	These points. All 4 in the correct order, DBCA, 2 m 3 in order, 1m	2 marks
b.		
i.	These points. Inserts/imports the picture from the disk, 1m Or: cut/copy the file off disk and paste into the letter, 1m Or: open the picture in a graphic application and cut/copy it into the letter, 1m Or: drag the file from the disk and drop it in the letter, 1m Positions the picture in the letter, e.g. cursor in the correct position, moves the picture after importing, re-sizes, 1m Wraps text round picture, 1m	2 marks
ii.	These points. bold, colour, different fonts	3 marks
c.	These points. Click 'reply' on an email previously received from the manufacturer. Use the address book in the email software. Look at the manufacturer's web site.	3 marks
d.	These points. Roboshop's address and telephone number the secretary's name a hyperlink to Roboshop's web site	3 marks
e.		
i.	Any reasonable, for example. the files can be downloaded more quickly	1 mark
ii.	This point. it must be unzipped Not: 'do a virus scan' as this is not sufficiently specific to a zipped file.	1 mark
	Total for this question:	15 marks

<table>
<tr><td>2.</td><td></td><td></td></tr>
<tr><td>a.</td><td>This point.
spreadsheet</td><td>1 mark</td></tr>
<tr><td>b.</td><td></td><td></td></tr>
<tr><td>i.</td><td>Any reasonable. For example:
Cell reference of a cell other than A5 that contains text
i.e. one of A1 to A4; A6; A7; B1; C1
accept A8 to A12; B8 to B12; C8 to C12</td><td>1 mark</td></tr>
<tr><td>ii.</td><td>Any reasonable. For example:
Cell reference of a cell that contains a number
i.e. one of B2 to B7; C2 to C7; D9</td><td>1 mark</td></tr>
<tr><td>iii.</td><td>These points.<table><tr><td>Cell reference</td><td>Formulae</td></tr><tr><td>D3</td><td>B3*C3 or equivalent; allow sum(B3*C3); not B3xC3, ignore =</td></tr><tr><td>D10</td><td>D8+D9 or equivalent, ignore =</td></tr></table></td><td>2 marks</td></tr>
<tr><td>iv.</td><td>This point
SUM(D2:D7) or SUM(D1:D7)
ignore =
allow any valid range expression</td><td>1 mark</td></tr>
<tr><td>c.</td><td>These points.
The plumber can rely on the software to produce accurate calculations if it has been set up correctly
The customer can be given a neatly printed estimate
The software can be set up so that it can be used to produce estimates for any customer.</td><td>3 marks</td></tr>
<tr><td>d.</td><td></td><td></td></tr>
<tr><td>i.</td><td>Any reasonable input device. For example:
keyboard, mouse</td><td>2 marks</td></tr>
<tr><td>ii.</td><td>These points.
floppy disk
CD-R
hard disk</td><td>3 marks</td></tr>
<tr><td>iii.</td><td>Any reasonable. For example:
Scan pictures of the bath, etc.
The task must be reasonable in the context, e.g. ‘Copy a picture’ is reasonable but OCR is not.</td><td>1 mark</td></tr>
<tr><td></td><td>Total for this question:</td><td>15 marks</td></tr>
</table>

3.		
a.		
i.	This point. Circles Wrig75	1 mark
ii.	These points. When the Patient Name has been input, the clerk checks again that the Patient Name on the monitor is the same as that on the form. The Patient Name is input twice. The computer checks that the two Patient Names input are the same. If they are not the same, the computer tells the clerk.	2 marks
iii.	These points. type check table look-up	2 marks
b.	These points. A key field cannot be empty. A key field must have a different value in every record.	2 marks
c.	These points. The coded information takes up less space on backing storage. The clerk can input the coded information faster.	2 marks
d.	These points. Patient Name — In the order shown, 2m Feather — 5 in order, 1m Iqbal — In reverse order, all correct, 1m McLoughlin Morgan Rooney Wrig75	2 marks
e.	Any reasonable. For example: Field: Telephone number Reason the hospital would find the field useful: Contacting relatives in an emergency Field: GP (General Practitioner) name Reason the hospital would find the field useful: So the hospital knows which doctor to inform when a patient returns home. Not: age – date of birth should be used a field that has been given in the question.	4 marks
	Total for this question:	15 marks

4.			
a.	These points, bar code reader keyboard		2 marks
b.	This point. To record who has borrowed a book both the pupil and the book must be identified.		1 mark
c.	These points. The bar code on the book is used to find the connection between the book and the borrower, and delete it. It does not matter who returns the book.		2 marks
d.	These points. Find books written by an author. Find books on a topic, such as history or geography.		2 marks
e.	These points. Includes a fileserver and at least 3 computers in a correct topology (star, bus or line), 1m		3 marks
	Includes a printer, 1m Includes a bar code reader, 1m Includes other reasonable facilities, e.g. CD drive, connection to other network, etc., 1m	Max 2m	
f.	These points. the network manager; ignore other answers, 1m librarians; ignore other answers, 1m		2 marks
g.	These points. There are over 1,500 pupils at the school. The school library has over 10,000 books. Many pupils will use the computers to access the Internet, and for doing homework.		3 marks
	Total for this question:		15 marks

<table>
<tr><td>5.</td><td></td><td></td></tr>
<tr><td>a.</td><td></td><td></td></tr>
<tr><td>i.</td><td>These points.
<table>
<tr><td>clearscreen</td><td>ignore</td></tr>
<tr><td>forward 2</td><td rowspan="3">first 3 instructions correct, 1m</td></tr>
<tr><td>left 90</td></tr>
<tr><td>forward 3</td></tr>
<tr><td>left 90</td><td rowspan="4">remaining instructions correct, 1m</td></tr>
<tr><td>forward 2</td></tr>
<tr><td>left 90</td></tr>
<tr><td>forward 3</td></tr>
<tr><td>left 90</td><td>ignore</td></tr>
</table>
Syntax correct throughout, 1m
Allow any reasonable abbreviation, eg. lt for left.</td><td>3 marks</td></tr>
<tr><td>ii.</td><td>Correct shape is:


first two sides correct, 1m
next two sides correct, 1m
completes correct shape, 1m</td><td>3 marks</td></tr>
<tr><td>iii.</td><td>These points. Max. 3 marks.
Correct labels in 2 boxes, 1m each box
Correct and complete, 1m
D
A
CB</td><td>3 marks</td></tr>
<tr><td>iv.</td><td>This point.
If the screen is not cleared, the new shape may be drawn on top of shapes that have already been drawn.</td><td>1 mark</td></tr>
<tr><td>b.</td><td>These points.
My web page
</HEAD>
<BODY>
My picture
mypicture.jpg</td><td>5 marks</td></tr>
<tr><td></td><td>Total for this question:</td><td>15 marks</td></tr>
</table>

6.		
a.		
i.	These points. Usernames are set by the network manager but a password can be changed by a student. Two students can have the same name but they will not have the same username. Usernames and passwords help keep students' files private and secure.	3 marks
ii.	These points. You should choose a password that is hard for someone else to guess. You should never tell anyone else your password. You should change your password frequently.	3 marks
iii.	Any reasonable. For example: To verify the password. So that any errors when entering the password are picked up.	1 mark
b.		
i.	These points. If the building burns down, the computer could be destroyed. Another student using the computer could delete the work. There is a backup of the file server but not the computer the work is saved on.	3 marks
ii.	This point. copy	1 mark
iii.	Any reasonable. For example: Make a copy on portable media, e.g. floppy disk, zip, etc. (NOT on the computer's hard disk). Take the copy to another location, e.g. home. Keep several copies in different locations.	2 marks
c.	Any reasonable. For example: To prevent the student installing viruses hidden in the downloaded software. Installing the downloaded software may damage software already installed. Not: to prevent pupils downloading pornography.	1 mark
d.	Any reasonable. For example: Bandwidth is too narrow, 1m Transmission speed of the network is too slow, 1m Computer's processor is too slow, 1m Computer has too little free space on the hard disk, 1m The more people are using the network, the slower it runs, 1m There is a bottleneck as all the school's computers access the Internet via one modem, 1m The web page being accessed has many large graphics.	1 mark
	Total for this question:	15 marks

7.		
a.		
i.	This point. teleworking	1 mark
ii.	Any reasonable. For example: Less car use means less polution.	1 mark
iii.	These points. At home, the accountant's working hours are more flexible. The accountant does not have to waste time travelling to work every day.	2 marks
iv.	These points. The accountant feels out of touch compared with colleagues who work at the firm's head office every day. It can take longer to get work done at home as there can be more distractions.	2 marks
b.	Any reasonable. For example: Health hazard: eye strain How to avoid the health hazard: take a short break regularly	2 marks
c.		
i.	This point. multi-tasking	1 mark
ii.	These points. Some web sites let users contact them using a hyperlink to email. A wordprocessor can be used to write email messages. Some emails contain hyperlinks to web sites.	3 marks
d.	Any reasonable. For example: Infrastructure problems - the electricity supply is unreliable - there may not be access to telephone lines. Financial problems – computer equipment is too expensive for most people in a low wage economy. Cultural problems – you need to speak a major world language such as English in order to be able to read the information available. Education – people are not sufficiently well educated to know how to use the Internet, or what to do with it. Not: They haven't got the facilities to use the Internet. They might not have a computer. They might not be connected. Because it is expensive.	3 marks
	Total for this question:	15 marks

8.		
a.		
i.	Any reasonable. For example: The advertising agency's clients want to sell goods to Cotex's customers.	1mark
ii.	Any reasonable. For example: Customers will receive even more junk mail.	1mark
iii.	Any reasonable. For example: Any reasonable interpretation of custom and practice in implementing data protection legislation. For example, Cotex's customers' personal information should only be used for the purposes for which it was collected. It contravenes data protection legislation.	1mark
b.		
i.	Any reasonable. For example: A computer is much less likely to make a mistake than a person using the ICT system.	1mark
ii.	Any reasonable. For example: The assistant is using a computer that has all customers' personal details stored on it.	1 mark
c.		
i.	These points. Do the ironing. Experience religious insights and prayer.	2 marks
ii.	These points. Control the operation of traffic lights. Recall census data.	2 marks
iii.	These points. Computers can repeat a task over and over again without making errors. Computers can accurately recall more information much faster than people. Computers can work 24 hours every day.	3 marks
iv.	These points. People tell computers what to do by writing computer programs. Computers are inanimate and have no life force. People have a sense of purpose.	3 marks
	Total for this question:	15 marks