

GCSE 2004
June Series



Mark Scheme

Information and Communication

Technology

Specification B

3528/H

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.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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Publications Department, Aldon House, 39, Heald Grove, Rusholme, Manchester, M14 4NA
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3528/H – Full Course Higher Tier

1.		
a.	<p>These points.</p> <p>Inserts/imports the picture from the disk, 1m</p> <p>Or: cut/copy the file off disk and paste into the letter, 1m</p> <p>Or: open the picture in a graphic application and cut/copy it into the letter, 1m</p> <p>Or: drag the file from the disk and drop it in the letter, 1m</p> <p>Positions the picture in the letter, e.g. cursor in the correct position, moves the picture after importing, re-sizes, etc., 1m</p> <p>Wraps text round picture, 1m</p>	2 marks
b.	<p>Any reasonable. For example.</p> <p>bold, colour, tab, different fonts, different styles, borders</p> <p>Not: bullets</p>	2 marks
c.		
i.	<p>These points.</p> <p>A wordprocessed document</p> <p>A spreadsheet</p>	2 marks
ii.	<p>Any reasonable, for example:</p> <p>A picture</p>	1 mark
Total for this question:		7 marks

2.								
a.	<p>Any reasonable, for example:</p> <p>spreadsheet</p>	1 mark						
b.	<p>These points.</p> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Formula</th> <th>Cell reference</th> </tr> </thead> <tbody> <tr> <td>B5*C5</td> <td>D5</td> </tr> <tr> <td>SUM(D2:D7)</td> <td>D8</td> </tr> </tbody> </table>	Formula	Cell reference	B5*C5	D5	SUM(D2:D7)	D8	2 marks
Formula	Cell reference							
B5*C5	D5							
SUM(D2:D7)	D8							
c.								
i.	<p>Any reasonable input device. For example:</p> <p>mouse – used to point and select</p> <p>scanner – used to scan pictures of the bath, etc.</p>	4 marks						
ii.	<p>Any reasonable. For example.</p> <p>floppy disk, CD-RW (accept CD-ROM, CD, etc), hard disk, zip disk, etc.</p>	1 mark						
Total for this question:		8 marks						

3.																							
a.	This point. 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.	1 mark																					
b.	Any reasonable. For example. There must be a key field in every record in the database. The key field must be different in every record in the database.	1 mark																					
c.	Any reasonable. For example. The coded information takes up less space on backing storage. The clerk can input the coded information faster.	2 mark																					
d.	These points. <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Patient Name</td> <td style="width: 30%;"><i>Admission Date</i></td> <td style="width: 40%;">Writes down the Patient</td> </tr> <tr> <td>Wrig75</td> <td>04/01/2004</td> <td>Names, 1m</td> </tr> <tr> <td>Iqbal</td> <td>07/01/2004</td> <td>In the order shown, 2m</td> </tr> <tr> <td>McLoughlin</td> <td>07/02/2004</td> <td>5 in order, 1m</td> </tr> <tr> <td>Rooney</td> <td>15/03/2004</td> <td>In reverse order, all</td> </tr> <tr> <td>Morgan</td> <td>20/03/2004</td> <td>correct, 1m</td> </tr> <tr> <td>Feather</td> <td>17/04/2004</td> <td></td> </tr> </table>	Patient Name	<i>Admission Date</i>	Writes down the Patient	Wrig75	04/01/2004	Names, 1m	Iqbal	07/01/2004	In the order shown, 2m	McLoughlin	07/02/2004	5 in order, 1m	Rooney	15/03/2004	In reverse order, all	Morgan	20/03/2004	correct, 1m	Feather	17/04/2004		3 marks
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Feather	17/04/2004																						
	Total for this question:	7 marks																					

4.				
a.	Any reasonable. For example. If the bar code is damaged, the number can be entered on a keyboard.	1 mark		
b.	These points. The bar code on the book identifies the book, 1m The bar code on the library card identifies the pupil, 1m To record who has borrowed a book both the pupil and the book must be linked, 1m	2 marks		
c.	These points. Includes a fileserver and at least 3 computers in a correct topology (star, bus or line), 1m <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Includes a printer, 1m Includes a bar code reader, 1m Includes other reasonable facilities, e.g. CD drive, connection to other network, etc., 1m</td> <td style="width: 40%; text-align: center;">Max 2m</td> </tr> </table>	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	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			
d.	This point. the network manager; ignore other answers, 1m	1 mark		
e.	Any reasonable. For example: If there are a lot of pupils at the school, the cost per pupil could be very small. If the school library has a lot of books, the cost of organising lending manually could far exceed the cost of a computer system. The hardware could have additional uses; for example, it could be used to access a wider range of different information sources on the web.	1 mark		
	Total for this question:	8 marks		

5.								
a.	<p>These points.</p> <table border="1" data-bbox="268 297 1201 667"> <tr> <td data-bbox="268 297 842 331">clearscreen</td> <td data-bbox="842 297 1201 331">ignore if not present</td> </tr> <tr> <td data-bbox="268 331 842 398">repeat 2 [forward 2 left 90 forward 3 left 90]</td> <td data-bbox="842 331 1201 398">repeat 2 [instructions], 1m instructions, 1m</td> </tr> <tr> <td data-bbox="268 398 842 667">forward 2 left 90 forward 3 left 90 forward 2 left 90 forward 3 left 90</td> <td data-bbox="842 398 1201 667">Correct sequence and correct syntax but not using repeat, 1m</td> </tr> </table>	clearscreen	ignore if not present	repeat 2 [forward 2 left 90 forward 3 left 90]	repeat 2 [instructions], 1m instructions, 1m	forward 2 left 90 forward 3 left 90 forward 2 left 90 forward 3 left 90	Correct sequence and correct syntax but not using repeat, 1m	2 marks
clearscreen	ignore if not present							
repeat 2 [forward 2 left 90 forward 3 left 90]	repeat 2 [instructions], 1m instructions, 1m							
forward 2 left 90 forward 3 left 90 forward 2 left 90 forward 3 left 90	Correct sequence and correct syntax but not using repeat, 1m							
b.	<p>These points.</p> <p>Correct labels in boxes, 1m each box. D A CB</p> <p>Correct down lines from start to end, and at least one down arrow above the decision box, 1m</p> <p>Correct loop (right from decision box, up, left) and at least one arrow, 1m</p> <p>Yes and No on decision box or equivalents, 1m</p>	6 marks						
Total for this question:		8 marks						

6.		
a.	Any reasonable. For example. 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. Uses a minimum of 6 characters.	1 mark
b.		
i.	Any reasonable. For example. If the building burns down, all the computers could be destroyed. Another student using the computer could delete the work. Another student using the computer could email the work to everyone in the class.	1 mark
ii.	Any reasonable. For example. A copy on backing storage, 1m Accept: more than one 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:	7 marks

7.		
a.		
i.	This point. teleworking	1 mark
ii.	Any reasonable. For example. Less car use means less pollution.	1 mark
b.	Any reasonable. For example: Health hazard: eye strain How to avoid the health hazard: take a short break regularly.	2 marks
c.	Any reasonable. For example. Infrastructure problems <ul style="list-style-type: none"> - 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 Political problems – the government may not allow people to access the Internet 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:	7 marks

8.		
a.		
i.	This point. Experience religious insights and prayer.	1 mark
ii.	These points. Control the operation of traffic lights.	1 mark
c.	<p>Any reasonable advantage. For example. When body parts wear, they need replacing <u>or the person suffers or dies</u>, e.g. pacemakers. These body parts <u>can last longer than the original</u>. New body parts could be made with <u>additional features</u> that the originals do not have, e.g. replacement arms with alternative hands that are more sensitive, have more fingers, have torches built in, etc. This process, taken to an extreme conclusion could see most body parts replaced, and replaceable indefinitely, so people could <u>lead more active lives much longer</u>.</p> <p>Any reasonable against. For example. To get a body part replaced, the person has to have <u>an operation</u> which could be painful or life threatening. Computerised devices can go wrong perhaps causing <u>bizarre behaviour</u> or death. If we get used to the idea that body parts can be replaced, we may not live healthy lives. Some body parts are <u>not currently replicable</u>, because: technology cannot produce an adequate replacement we do not fully understand how all body parts function, e.g. the brain. <u>We do not fully understand</u> which body parts we can replace and which we cannot replace.</p>	<p>6 marks</p> <p>Allow up to 4 adv., and up to 4 disadv.</p>
	Total for this question:	8 marks