Mark Scheme (Final)

June 2013

BTEC Level 1/Level 2 First in Information and Creative Technology (20560E06)

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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.

Question Number	Answer	Mark
1	Fibre optic	(1)

Question Number	Answer	Mark
2	Transfer time for compressed files is reduced Multiple files can be sent in a single compressed folder	(2)

Question Number	Answer	Mark
3(a)	Award **one** mark for any of the following: • firewall • encryption • anti-virus (software). **Accept any other relevant phrasing/wording.**	(1)

Question Number	Answer	Mark
3(b)	Award **one** mark for any of the following: • levels of permission/file permission • different access rights/levels of access • user profiles. **Do not accept:** 'access control'. **Accept any other relevant phrasing/wording.**	(1)

Question Number	Answer	Mark
4(a)	Business	(1)

Question Number	Answer	Mark
4(b)	Documents can be shared	(1)

Question Number	Answer	Mark
5	<td> <tr>	(2)

Question Number	Answer	Mark
6	Messages are sent in real time Group messages can be sent	(2)

Question Number	Answer	Mark
7(a)	Award **one** mark for any of the following up to a maximum of **two** marks. To stop anyone else getting hold of/seeing her personal/payment details. (To stop) identify theft/people cannot pretend to be her. To stop people spending/taking her money (from her account) without her knowledge. **Accept any other relevant phrasing/wording.**	(2)

Question Number	Answer	Mark
7(b)	HTTPs appearing in the browser address bar. A padlock/lock image/icon on the URL/address bar. **Do not accept the padlock/lock on the main page or on its own.**	(2)

Question Number	Answer	Mark
8	Sender's IP address	(1)

Question Number	Answer	Mark
9	Award **one** mark for identification and **one** additional mark for appropriate expansion. Phishing (1) where you are asked for personal information such as bank details so money can be taken from the bank but no damage is done to the computer (1). Piggybacking (1) where normal safe communication carries additional harmful payloads of a covert application/where someone gains illegal entry to a restricted site on the back of a legal entrant but no damage is done to the computer (1). Tunnels (1) where they are formed via existing communication channels to send alternative data but no damage is done to the computer (1). Probes (1) where an open port is accessed and an analysis of the network or computer system is carried out but no damage is done to the computer (1). Pharming(1) when visiting a website you are (automatically) directed to a fake website where when you enter personal details, they are stolen (1). **Accept any other relevant phrasing/wording.**	(2)

Question Number	Answer	Mark
10	Hotspot Hyperlink	(2)

Question Number	Answer	Mark
11	Change the password regularly Use a mix of letters, numbers and symbols	(2)

Question Number	Answer	Mark
12	Award **one** mark for identification and **one** additional mark for appropriate expansion up to a maximum of **four** marks. Undelete software (1) which locates the disk space that was occupied by a deleted file and can restore from this information (1). Use the 'previous version' feature (1) which, providing Robin has set up this facility, will hold earlier copies of folders and files for a period of time (1). **Accept any other relevant phrasing/wording.**	(4)

Question Number	Answer	Mark
13	Compresses video files and makes them playable on a computer Compresses video files to speed up download time	(2)

Question Number	Answer	Mark
14	Award **one** mark for identification and **one** additional mark for appropriate expansion up to a maximum of **four** marks. Online storage facilities (e.g. dropbox/cloud/filesharing sites) (1) where he can allow others access to the files by inviting them to the area by email/provide users with a link to the video (1). Online video sharing sites (e.g. Youtube) (1) allow anyone connected to the web to easily upload/post digital video recordings (1). Video conferencing software (1) appshare where external users view the video at the same time as it plays on the host computer (1). Instant messaging (1) where staff are notified automatically/by email/with a popup (1). Social networking sites (1) where all staff are notified with an automatic ('post') update (1). **Accept any other relevant phrasing/wording.**	(4)

Question Number	Answer	Mark
15	Award **one** mark for identification and **one** additional mark for appropriate expansion up to a maximum of **four** marks. A powerful server needs to be used rather than Dan's own computer (1) to enable the large database to be interrogated at a reasonable speed (1). Security of Dan's data (personal data plus bidding data) and auction website data (1) because this data must be processed by a secure server/if it was processed client-side it would only have security on personal data (1). The server would need to update item/bid	(4)

data centrally (1) to ensure that data is filtered to particular users (1).

Live updating of database (1) so that all bidders see the updated items instantly (1).

Accept any other relevant phrasing/wording.

Question Number	Answer	Mark
16(a)	Award **one** mark for identification and **one** additional mark for appropriate expansion. The Hire table is the link between the three tables as the primary key in the Car table (Reg no) is the foreign key in the Hire table (1) whereas the primary key in the Customer table (Customer ID) is in the Hire table as a foreign key so this is how the three tables are linked (1). The relationship between Car and Hire is one to many (1) and the relationship between Customer and Hire is also one to many (1). Award **one** mark for 'one to many' on its own. **Accept any other relevant phrasing/wording.**	(2)

Question Number	Answer	Mark
16(b)	Award **one** mark for identification and **one** additional mark for appropriate expansion. By having a number of tables rather than one large table, data duplication (data redundancy) is reduced/data consistency increased (1) so the database is more efficient and therefore quicker when carrying out searches (1). With a large single table database data is keyed in many times and could be entered incorrectly (1) whereas with a relational database smaller tables are created and the data is only keyed in once so less likelihood of errors (1). **Accept any other relevant phrasing/wording.**	(2)

Question Number	Answer	Mark
17	Award **one** mark for identification and **one** additional mark for appropriate expansion. Students can socially interact with each other on the topics and can start discussion groups (1) which could allow them to see different points of view/ideas they hadn't considered (1). The site will allow collaborative working. Students can work with other members of the group (1) without being in the same place so they can work outside school hours to get more done (1). Can upload clips and resources from the internet for each other to access/share links (1) so that more up to date and appropriate sources can be shared (1). **Accept any other relevant phrasing/wording.**	(2)

Question Number	Answer	Mark
18	**Indicative content:** How to use the smartphone as a research tool: - Question what is required before going online/have a plan/search strategy so time is not wasted. - Analyse and categorise data found. - Integrate the information and draw conclusions. - Evaluate the findings. **Advantages** Access to the network/wireless will be quick. Students can access the internet anywhere on the site and are not necessarily restricted to a classroom. Some smartphones have office applications which can be used anywhere to make notes. School may not have enough computers but most students will have a smartphone. Being able to carry out specific searches will speed up the research process/powerful search engines allow speedy results. Data can be transferred to cloud storage. Have friends as contacts so can share resources (may also be a disadvantage). Flexible study time — many homes do not have access to books yet students have smartphones with 3G so can continue researching at home. Schools may encourage students to use their smartphones appropriately for school work. Loads of education apps available to aid learning. Encourages anytime/anywhere learning. QR codes on material from external companies around the school.	
		(8)

| | **Disadvantages**

Are students losing out if they don't have one?

Do students feel isolated if they don't have one — yet another reason for bullying?

Are families pressured into buying them?

Students can become distracted and can move onto games or communicating with friends rather than continuing with their work.

Students may allow their phones to go off in class which is distracting for other students and teachers.

Can be easily lost/stolen in an environment where they are always on display.

Information gathered is not necessarily available instantly as a printed document. | |

Level	Descriptor
0 0 marks	No rewardable material
1 1-3 marks	A few key points identified, or one point described in some detail. The answer is likely to be in the form of a list. Only one viewpoint considered. Points made will be superficial/generic and not applied/directly linked to the situation in the question.
2 4-6 marks	Some points identified, or a few key points described. Consideration of more than one viewpoint but there will be more emphasis on one of them. The answer is unbalanced. Most points made will be relevant to the situation in the question, but the link will not always be clear.
3 7-8 marks	Range of points described, or a few key points explained in depth. All sides of the case are considered and the answer is well-balanced, giving weight to all viewpoints. The majority of points made will be relevant and there will be a clear link to the situation in the question.