UNIVERSITY of CAMBRIDGE
International Examinations

Cambridge
International
**AS & A Level**

# Example Candidate Responses
## (Standards Booklet)

### Cambridge International AS and A Level Applied Information and Communication Technology

### 9713

**Cambridge Advanced**

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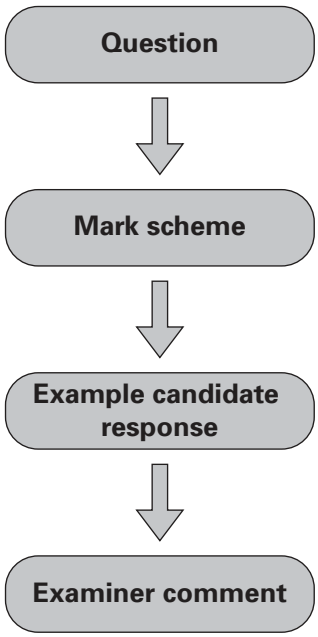
# Introduction

The main aim of this booklet is to exemplify standards for those teaching Cambridge International AS and A Level Applied ICT (9713), and to show how different levels of candidates' performance relate to the subject's curriculum and assessment objectives.

In this booklet a range of candidate responses has been chosen as far as possible to exemplify grades A, C and E. Each response is accompanied by a brief commentary explaining the strengths and weaknesses of the answers.

For ease of reference the following format for each paper has been adopted:




Comments are given to indicate where marks were awarded, and how additional marks could have been obtained. In this way, it is possible to understand what candidates have done to gain their marks and what they still have to do to improve their grades.

Past papers, Examiner Reports and other teacher support materials are available at http://teachers.cie.org.uk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# Assessment at a glance

## Cambridge International AS Level

| Paper 1 | 1 hour 15 minutes | Paper 2 | 2 hours 30 minutes |
|---|---|---|---|
| Written<br><br>Candidates answer each question in the spaces provided on the question paper.<br><br>Maximum mark: 80 | | Practical<br><br>A number of tasks taken under controlled conditions. Candidates must use the most appropriate software and the most appropriate methods.<br><br>Maximum mark: 120 | |
| 40% of total marks | | 60% of total marks | |

## Cambridge International A Level

| Paper 1 | 1 hour 15 minutes | Paper 2 | 2 hours 30 minutes |
|---|---|---|---|
| Written<br>Candidates answer each question in the spaces provided on the question paper.<br>Maximum mark: 80 | | Practical<br>A number of tasks taken under controlled conditions. Candidates must use the most appropriate software and the most appropriate methods.<br>Maximum mark: 120 | |
| 20% of total marks | | 30% of total marks | |
| **Paper 3** | **1 hour 15 minutes** | **Paper 4** | **2 hours 30 minutes** |
| Written<br>Candidates answer each question in the spaces provided on the question paper.<br>Maximum mark: 80 | | Practical<br>A number of tasks taken under controlled conditions. Candidates must use the most appropriate software and the most appropriate methods.<br>Maximum mark: 90 | |
| 20% of total marks | | 30% of total marks | |

Teachers are reminded that a full syllabus and other teacher support materials are available on www.cie.org.uk



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# Paper 1

## Scenario 1

Islamabad Translation Services is a company which employs a number of workers who translate documents between English and Urdu. Because much of the work is done on an individual basis, Faisal, the manager wants to allow the translators to work from home.

Shaista is a translator and she would like to work from home. She, like other workers, already has a standard PC with monitor, keyboard and mouse.

## Question 1 (a)

Describe the personal characteristics that Shaista would need to have before Faisal would recommend that she be allowed to work from home.

### Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **1 (a)** | **Three** from:<br>Be well motivated<br>Have good communication skills<br>Have good self-discipline/doesn't require supervision<br>Have good time management skills/can meet deadlines<br>Be well organised | [3] |

### General comment

Grade A candidates would be expected to gain full marks for this question. Grade C candidates would be expected to gain at least two marks and grade E candidates would be expected to gain one mark.


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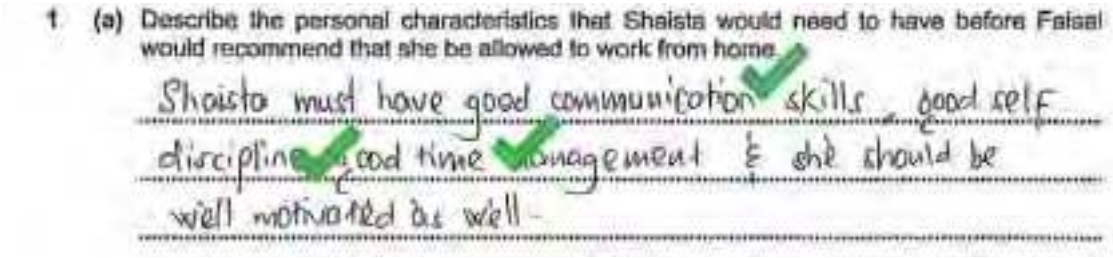
## Example candidate response – grade A


1 (a) Describe the personal characteristics that Shaista would need to have before Faisal would recommend that she be allowed to work from home.

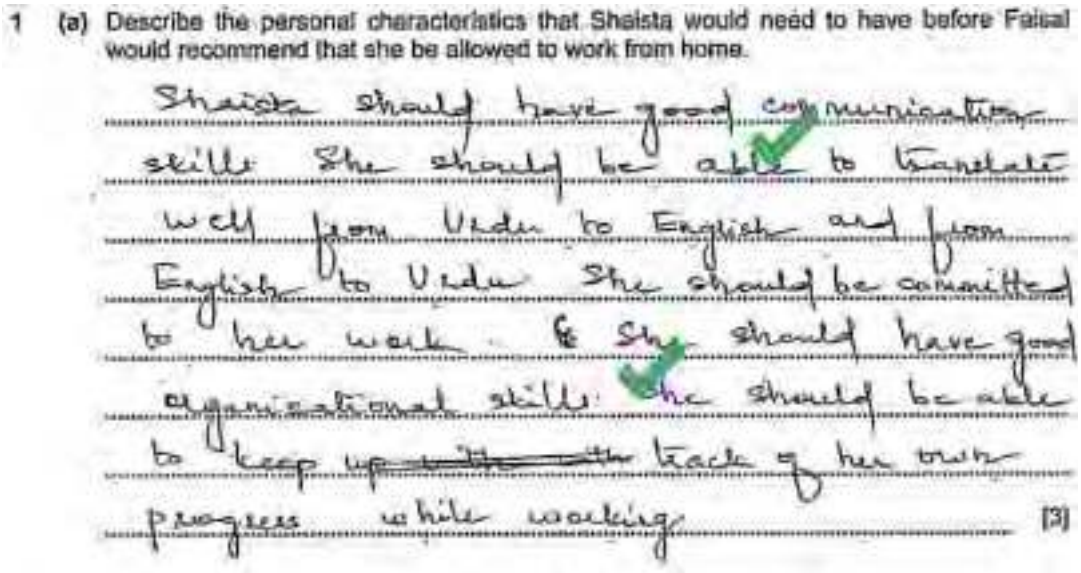
Shaista must have good communication skills, good self discipline, good time management & she should be well motivated as well.

## Examiner comment – grade A

The candidate provided three good answers:

- Have good communication skills.
- Have good self-discipline.
- Have good time management.

## Example candidate response – grade C


1 (a) Describe the personal characteristics that Shaista would need to have before Faisal would recommend that she be allowed to work from home.

Shaista should have good communication skills. She should be able to translate well from Urdu to English and from English to Urdu. She should be committed to her work & She should have good organisational skills. She should be able to keep up with the track of her own progress while working. [3]

## Examiner comment – grade C

The candidate gave two personal characteristics that of having good communication skills and being well organised. Her middle answer relating to her ability to translate well would be needed for her job whether she worked at home or in an office.



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## Example candidate response – grade E

1 (a) Describe the personal characteristics that Shaista would need to have before Faisal would recommend that she be allowed to work from home.

Shaista would need to have appropriate equipment. She would also need to have appropriate software eg word processing software to translate documents and input data into computer. She would also need to have good time management skills and should know how to to operate the system [3]

## Examiner comment – grade E

The candidate concentrated on hardware and software requirements rather than Shaista's personal characteristics. One mark, however, was awarded for the mention of time management skills.

# Question 1 (b)

Describe, including their uses, the extra hardware that each worker will need to have in order to work from home.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **1 (b)** | **Three** from:<br>Broadband connection/router to connect to the internet…<br>…to send emails to company/manager(Faisal)<br>A fax machine to send/receive (translated) documents/documents (that need translating)<br>A landline/mobile phone to communicate with Faisal/other translators<br>A printer to print documents…<br>…for faxing<br>…for translating (large documents)/after translating<br>A scanner to input documents ready for translation/that have been translated...<br>...so they can be sent as email attachments<br>Video conferencing hardware to communicate with other workers | [3] |

## General comment

Grade A candidates would be expected to gain full marks for this question. Grade C candidates would be expected to gain at least two marks and grade E candidates would be expected to gain one mark. The question required candidates to be able to describe the hardware and their uses.


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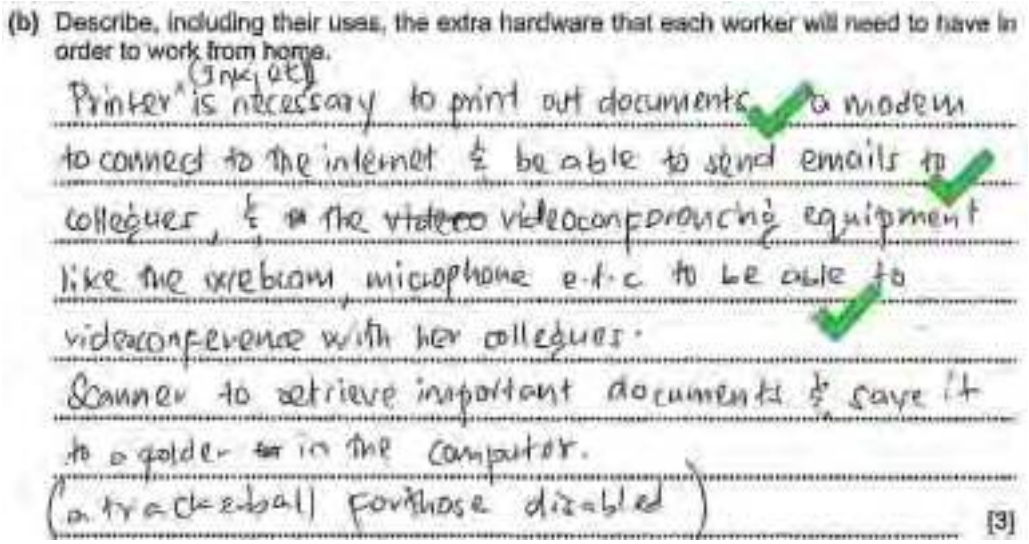
## Example candidate response – grade A


(b) Describe, including their uses, the extra hardware that each worker will need to have in order to work from home.

Printer (inkjet) is necessary to print out documents & a modem to connect to the internet & be able to send emails to colleagues, & the video videoconferencing equipment like the webcam microphone e.t.c to be able to videoconference with her colleagues. Scanner to retrieve important documents & save it to a folder in the computer. (a trackball for those disabled) [3]

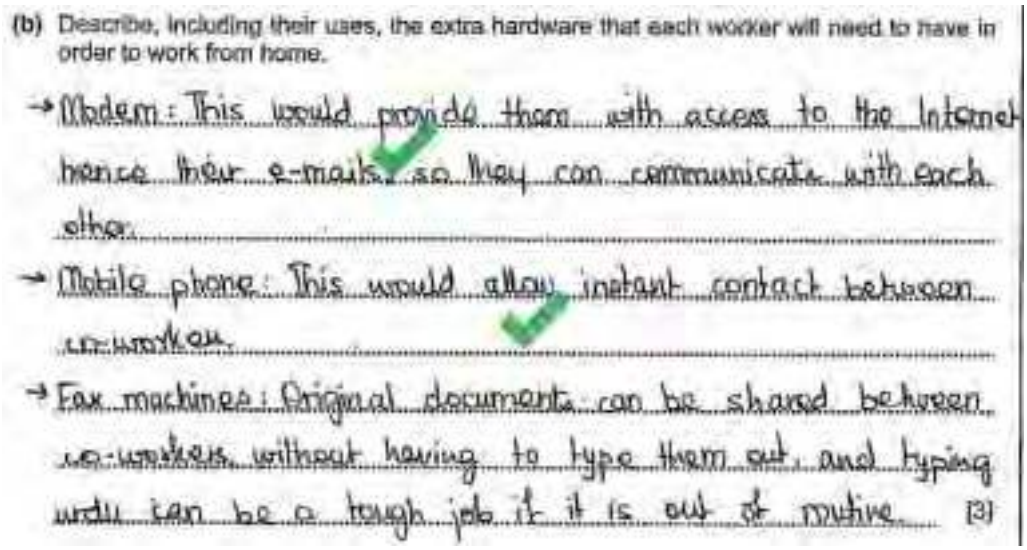
## Examiner comment – grade A

The candidate gained full marks for describing the uses of three items of hardware which would enable each worker to work from their home:

- A printer to print out the documents.
- A modem to connect to the internet to be able to send emails to colleagues.
- Two items of hardware required for video conferencing – a web cam and microphone.

Although the candidate did not mention broadband they were allowed the mark as they had expanded upon how they would use the internet.

## Example candidate response – grade C


(b) Describe, including their uses, the extra hardware that each worker will need to have in order to work from home.

→ Modem: This would provide them with access to the Internet hence their e-mails so they can communicate with each other.

→ Mobile phone: This would allow instant contact between co-workers.

→ Fax machines: Original documents can be shared between co-workers without having to type them out, and typing words can be a tough job if it is out of routine. [3]

## Examiner comment – grade C

The candidate described the use of:

- A modem to access the internet to send emails to their colleagues.
- A mobile phone to communicate with the other translators.

Again the candidate did not mention broadband but they were allowed the mark as they had expanded upon how they would use the internet.



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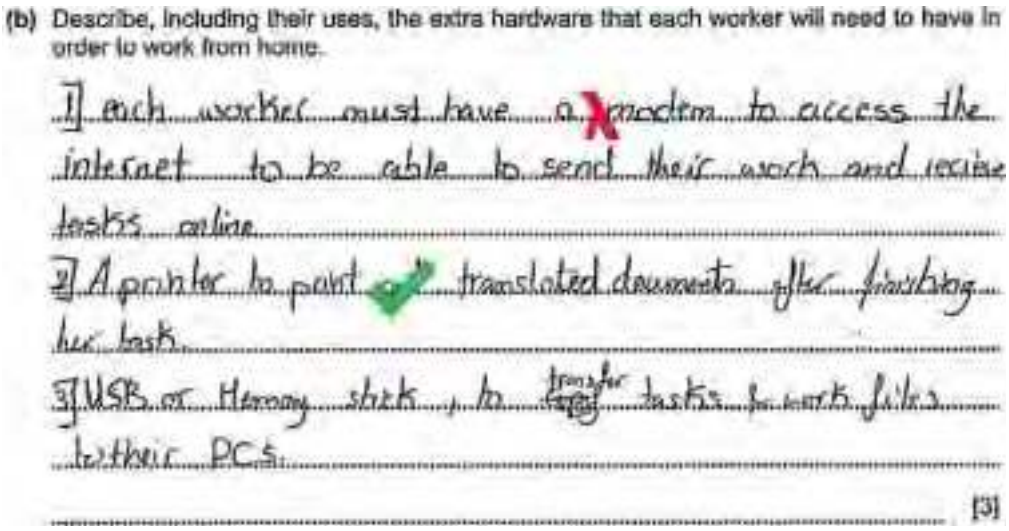
## Example candidate response – grade E


(b) Describe, including their uses, the extra hardware that each worker will need to have in order to work from home.

1] each worker must have a modem to access the internet to be able to send their work and receive tasks online

2] A printer to print translated documents after finishing her task

3] USB or Memory stick, to transfer tasks & work files to their PCs

[3]

## Examiner comment – grade E

The candidate did not mention broadband and failed to mention how the work would be sent using the internet. A mark was gained for the use of the printer to print out translated documents. The mention of a memory stick was not relevant to the scenario of working from home as the use of such a device would need them to travel back and forwards to the office.

# Question 2 (a)

Faisal wants to remain in contact with his workers and has considered regular video conferences for this. He feels this would also enable him to check on their work.

Describe the extra hardware which Faisal would have to provide for each worker to take part in a video conference.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **2 (a)** | **Three** from:<br>Webcam to input video<br>Webcam so that images of each worker can be transmitted/sent<br>Microphone to input voices<br>Microphone so that workers can speak with each other/Faisal<br>Speakers/headset to output voices<br>Speakers in order to hear other workers/Faisal | [3] |

## General comment

Grade A candidates would be expected to gain full marks for this question. Grade C candidates would be expected to gain at least two marks and grade E candidates would be expected to gain one mark. This question asked candidates to describe the hardware, so just naming the hardware was not enough.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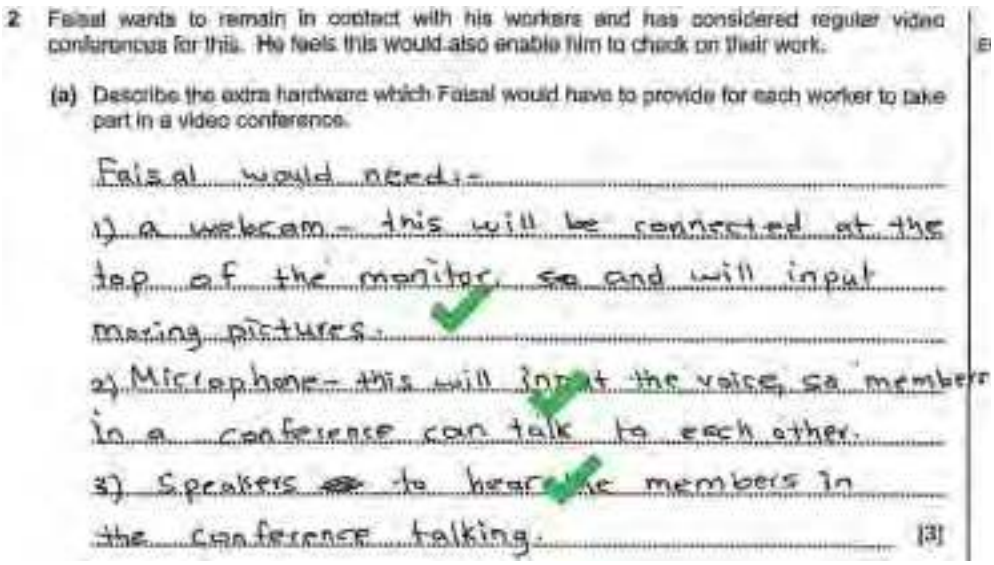
## Example candidate response – grade A



2 Faisal wants to remain in contact with his workers and has considered regular video conferences for this. He feels this would also enable him to check on their work.

(a) Describe the extra hardware which Faisal would have to provide for each worker to take part in a video conference.

Faisal would need:-

1) a webcam - this will be connected at the top of the monitor, so and will input moving pictures.

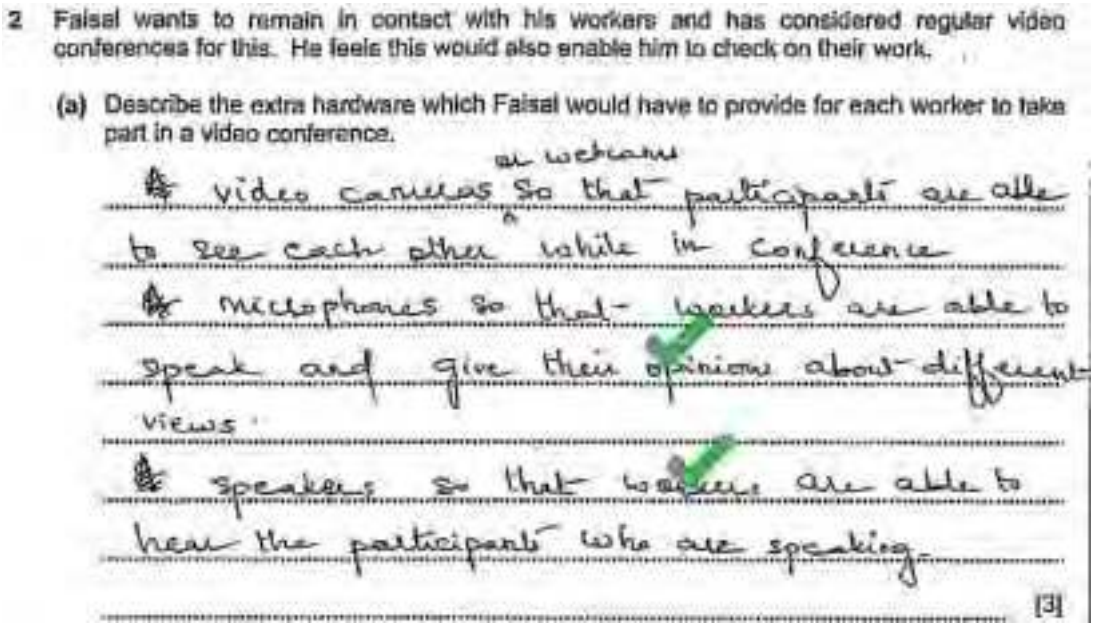
2) Microphone - this will input the voice, so members in a conference can talk to each other.

3) Speakers to hear the members in the conference talking. [3]

## Examiner comment – grade A

The candidate gave three good descriptions of a webcam, a microphone and speakers.

## Example candidate response – grade C



2 Faisal wants to remain in contact with his workers and has considered regular video conferences for this. He feels this would also enable him to check on their work.

(a) Describe the extra hardware which Faisal would have to provide for each worker to take part in a video conference.

* video cameras (as webcams) so that participants are able to see each other while in conference
* microphones so that workers are able to speak and give their opinions about different views
* speakers so that workers are able to hear the participants who are speaking. [3]

## Examiner comment – grade C

The candidate gave good descriptions of microphones and speakers but the description of a webcam lacked appropriate detail. An accurate description of the hardware was required here. Webcams are used to input video not to see other participants.



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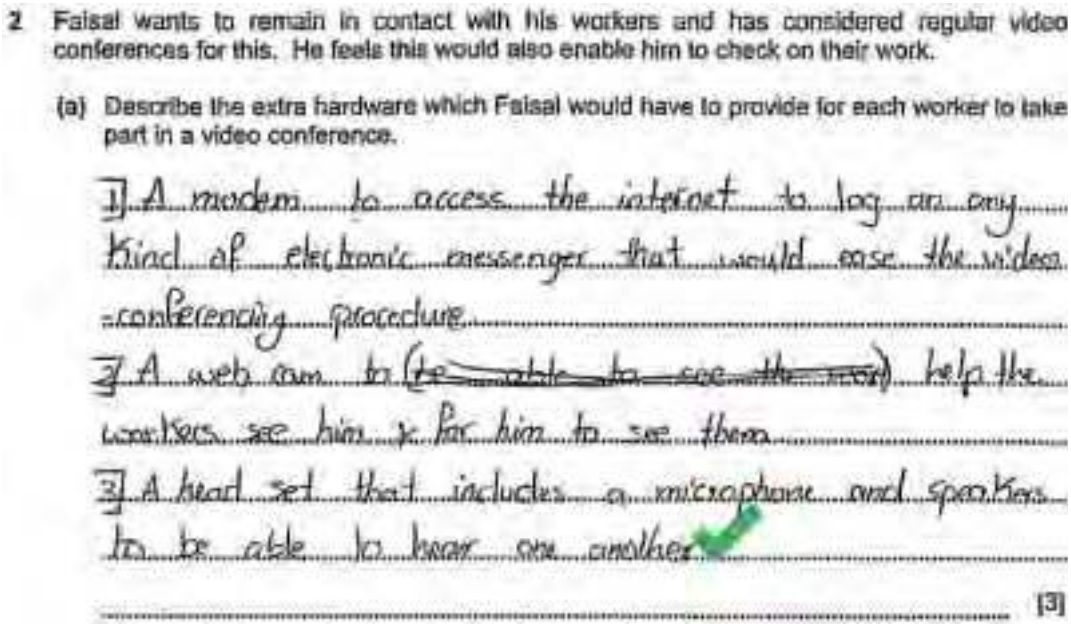
## Example candidate response – grade E



2 Faisal wants to remain in contact with his workers and has considered regular video conferences for this. He feels this would also enable him to check on their work.

(a) Describe the extra hardware which Faisal would have to provide for each worker to take part in a video conference.

1) A modem to access the internet to log on any kind of electronic messenger that would ease the video conferencing procedure.

2) A web cam to (be able to see the rest) help the workers see him & for him to see them.

3) A head set that includes a microphone and speakers to be able to hear one another.

[3]

## Examiner comment – grade E

The candidate mentioned a modem but this was a required answer for question 1(b) and so it would be difficult to give credit for it twice. In the event the candidate did not mention broadband which would be essential for a video conference and the description of its use lacked any substance.

# Question 2 (b)

Explain why Faisal would use a video conference rather than a phone conference.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **2 (b)** | **Two** from:<br>You can see the facial expressions/body language of other participants.<br>It is cheaper to set up/operate/organise than a phone conference.<br>You can see/amend/share documents that you want to discuss with each other.<br>Easier to identify whose turn it is/who wants to contribute next. | [2] |

## General comment

Grade A candidates would be expected to gain both marks for this question, whereas grade C and E candidates would both be expected to gain one mark.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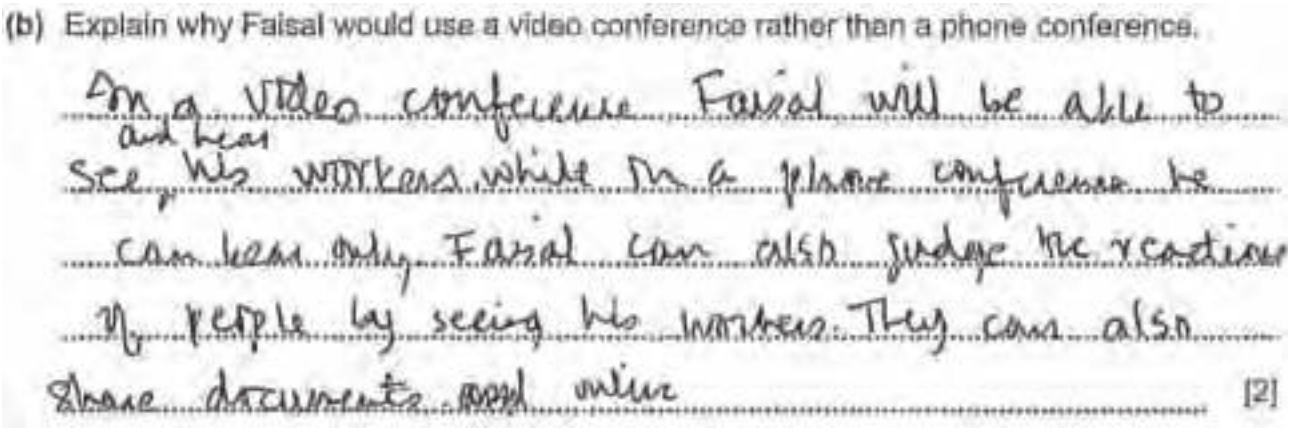
## Example candidate response – grade A


(b) Explain why Faisal would use a video conference rather than a phone conference.

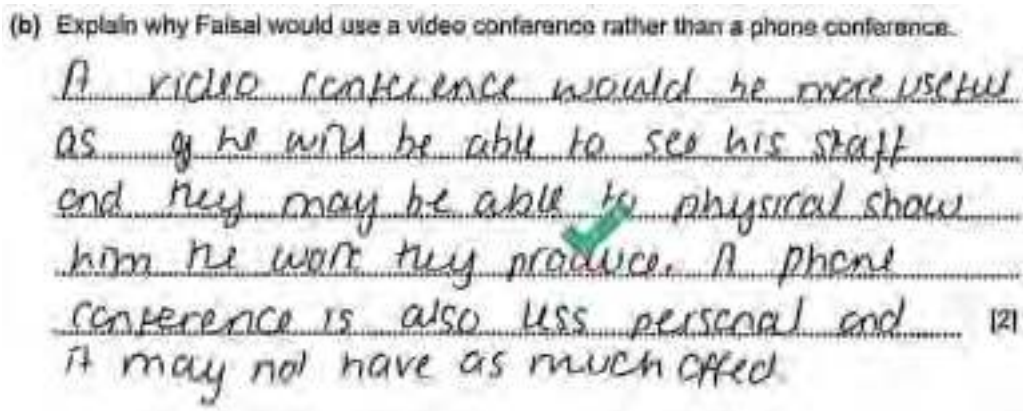
On a video conference Faisal will be able to see and hear his workers while in a phone conference he can hear only. Faisal can also judge the reactions of people by seeing his workers. They can also share documents and wise [2]

## Examiner comment – grade A

This response was a good example of how examiners do not penalise candidates whose initial answers are insufficient to meet the marking criteria. It was not until the last three lines of the answer that the candidate made two good points equivalent to the following mark points:

- You can see the facial expressions/body language of other participants.
- You can share documents that you want to discuss with each other.

## Example candidate response – grade C


(b) Explain why Faisal would use a video conference rather than a phone conference.

A video conference would be more useful as he will be able to see his staff and they may be able to physical show how he work they produce. A phone conference is also less personal and it may not have as much effect [2]

## Examiner comment – grade C

This candidate was quite vague in the response made. Just seeing his staff is not enough to gain a mark and the phone conference being less personal also did not warrant a mark. The benefit of the doubt was given for the answer relating to seeing documents.



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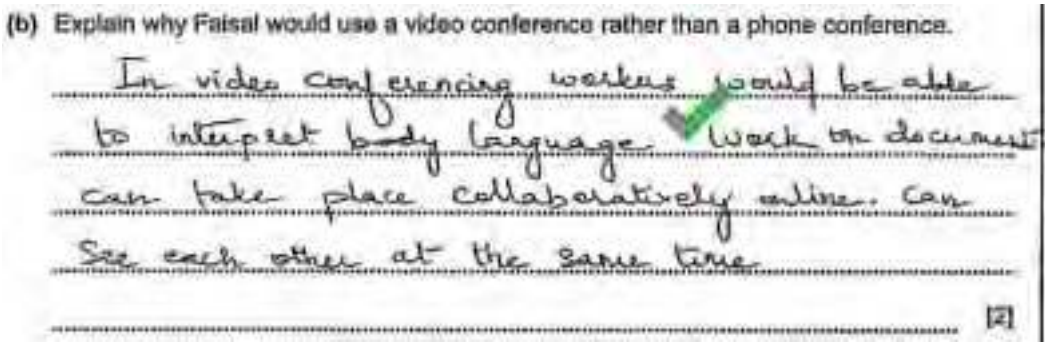
## Example candidate response – grade E


(b) Explain why Faisal would use a video conference rather than a phone conference.

In video conferencing workers would be able to interpret body language. Work on document can take place collaboratively online. Can see each other at the same time.

[2]

## Examiner comment – grade E

The candidate gained a mark for mentioning being able to see their expressions. The second point about amendments did not refer specifically to documents and so could not be given any credit.

# Scenario 2

An Egyptian book publishing company, Cairo Press, is looking to expand its operations. They wish to increase their advertising to extend their customer base. Their preferred method of advertising would be using a website, though they have the ICT facilities necessary to use a variety of methods.

If they do create their own website they will ask Ali, one of their most talented workers, to produce it. However, they are concerned about his lack of organisational skills.

# Question 3 (a)

Describe how time management software would help Ali to plan the creation of the website.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## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **3 (a)** | **Four** from:<br>***Computer/software***<br>Helps to ensure that project is completed within timescale and budget.<br>Organises meeting times.<br>Provides alerts regarding imminent start of meetings.<br>Can organise Ali's tasks.<br>Makes it possible to ensure members of a team have equitable workloads.<br>Provides a critical path analysis.<br>Identifies project progress.<br>Helps daily and weekly planning.<br>Can act as a stopwatch device.<br>Reminds the user how long they have been working on that task/how long left.<br>Enables Ali to see what emphasis is being placed on each task.<br>Can be used to produce Gantt charts.<br>***Gantt charts***<br>Help to plan out the tasks that are involved in a process.<br>Graphically represent progress in projects.<br>Are used to plan the whole process including parallel and sequential activities.<br>Used to arrange tasks so that parallel tasks finish at the same time.<br>***Calendar***<br>Software has a Calendar function.<br>Enables Ali to keep a record of his appointments/meeting times. Advises Ali of/Ali could easily see any clashes (of meetings scheduled for the same time and date).<br>Public calendar identifies a suitable time for a meeting of all members of a team. | [4] |

## General comment

Grade A candidates would be expected to gain full marks for this question. Grade C candidates would be expected to gain at least three marks and grade E candidates would be expected to gain at least two marks.



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## Example candidate response – grade A

2 (a) Describe how time management software would help Ali to plan the creation of the website.

Time management is to do work at the most appropriate period of time, with the most efficient ways of completing tasks, but with the highest quality.

Time management software would enable Ali to use a calendar function, this function would tell him how ~~long~~ ~~he~~ ~~has~~ to plan out days for his tasks, and the software could also contain a stop watch device to tell him how long he is spending on each task to create the website. [4]

The software is also capable of finding All the critical path this critical path finds the most optimum time needed to finish individual tasks.

The software can also produce gantt charts, these charts show the tasks that are needed to complete a process. And can show which activities are parallel or Sequential.

## Examiner comment – grade A

The candidate gained full marks for making several points which matched, or being very close to mark scheme points by stating that time management software:

- Would provide a calendar.
- Can act as a stopwatch device.
- Reminds the user how long they have been working on that task.
- Provides a critical path analysis.
- Can be used to produce Gantt charts.
- Are used to plan the whole process including parallel and sequential activities.

It was unfortunate for the candidate that there were only four marks available as six good points were made.


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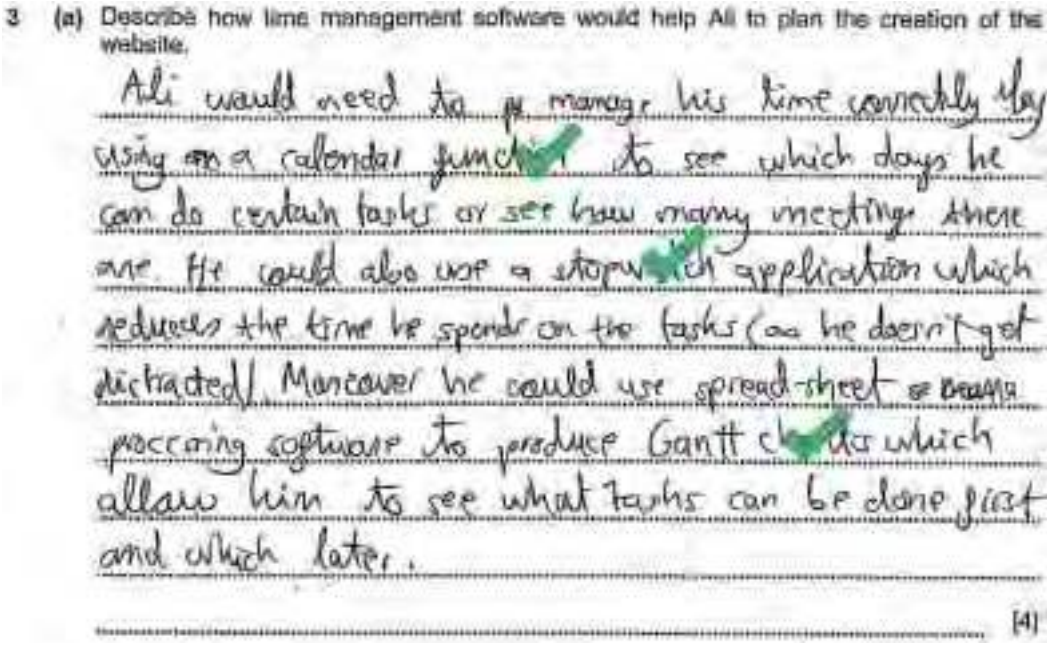
## Example candidate response – grade C



3 (a) Describe how time management software would help Ali to plan the creation of the website.

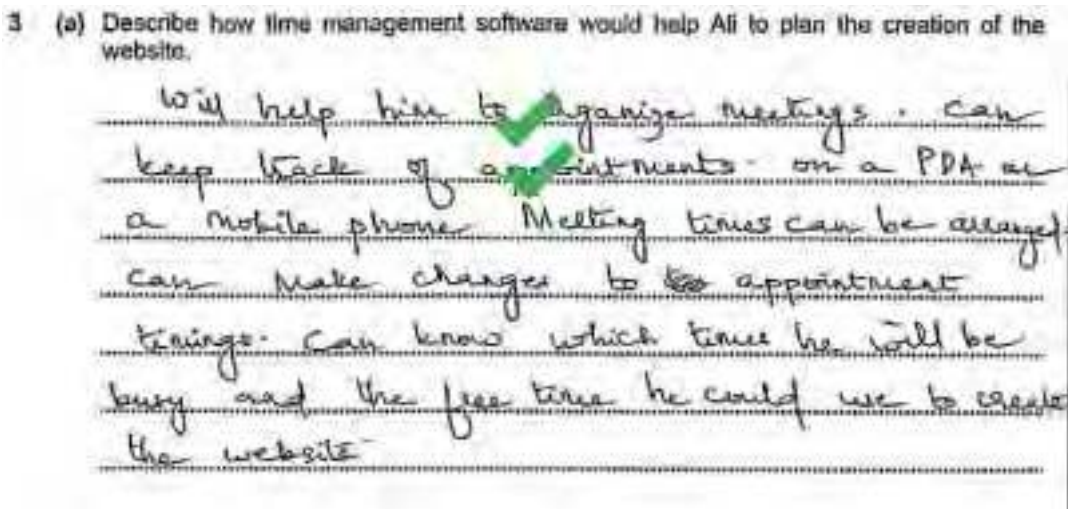
Ali would need to manage his time correctly by using on a calendar function to see which days he can do certain tasks or see how many meetings there are. He could also use a stopwatch application which reduces the time he spends on the tasks (so he doesn't get distracted). Moreover he could use spread-sheet or database processing software to produce Gantt charts which allow him to see what tasks can be done first and which later.

[4]

## Examiner comment – grade C

The candidate described the calendar function, acting as a stopwatch device and the production of Gantt charts. These were the only points the candidate made.

## Example candidate response – grade E



3 (a) Describe how time management software would help Ali to plan the creation of the website.

will help him to organize meetings. can keep track of appointments on a PDA or a mobile phone. Meeting times can be arranged can make changes to the appointment timings. can know which times he will be busy and the free time he could use to create the website

## Examiner comment – grade E

The candidate made two good points which fitted the mark scheme:

- Organises meeting times.
- Enables Ali to keep a record of his appointments.

Unfortunately the rest of the answer was a general answer which did not specifically relate to further points about time management software. The next point about arranging meeting times had already been given credit in the candidate's opening statement. The point about changing appointment times had already been covered by the first two points the candidate had made and was therefore just repeating what had already been written. The last sentence was too vague to be credited.



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# Question 3 (b)

Describe, giving the uses of each, six different types of software which Ali could use to create the website.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **3 (b)** | **Six** from:<br>Web authoring package to create web site<br>Word-processing package for typing text /tables etc.<br>DTP for creating pages for website<br>Spreadsheet to create statistical tables/graphs for inclusion in the website<br>Database to create files of data for inclusion in the website<br>Communications software to connect to Internet<br>Web browser to see how the web site appears to users<br>Software for editing scanned/downloaded images | [6] |

## General comment

Grade A candidates would be expected to gain at least five marks for this question. Grade C candidates would be expected to gain at least four marks and grade E candidates would be expected to gain at least two marks. As well as naming the type of software package it was expected that the candidate would give its use within the scenario.

## Example candidate response – grade A

(b) Describe, giving the uses of each, six different types of software which Ali could use to create the website.

1. Web authoring package → to design web pages.
2. Web browsing software → to browse the internet
3. Spreadsheet software → to produce graphs and charts to insert in webpage
4. Desktop Publishing software (DTP) → to design layout of page
5. Graphics software → to help in editing pictures (cropping, filling colours etc.) for them to be placed in website
6. Word Processing Software → to type in & edit text to be added to the web page

[6]


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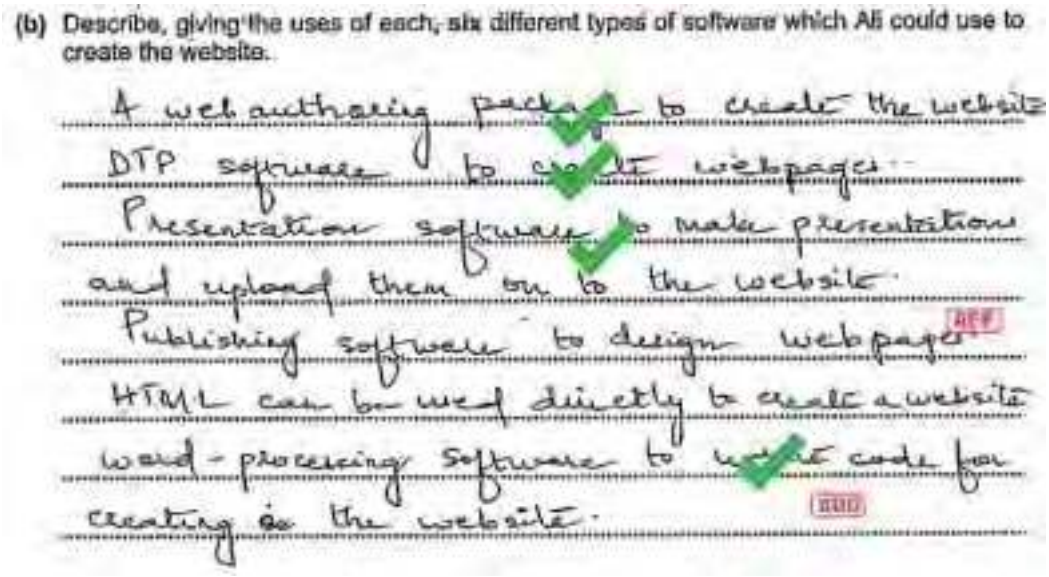
## Examiner comment – grade A

The candidate made five good points by naming the software and giving its use. The only answer which could not gain credit was web browsing software as the candidate had failed to say that it would be used to see how the web site appears to users.

## Example candidate response – grade C


(b) Describe, giving the uses of each, six different types of software which Ali could use to create the website.

A web authoring package to create the website
DTP software to create webpages
Presentation software to make presentations and upload them on to the website.
Publishing software to design webpages
HTML can be used directly to create a website
word-processing software to write code for creating the website.

## Examiner comment – grade C

The candidate made three good points:

- Web authoring package to create the website.
- DTP for creating pages for website.
- Presentation software to make presentations for uploading to the website.

A further mark was awarded as the candidate was given the benefit of the doubt for writing that word processing software would be used to write the codes for creating the website.

However, Publishing software (which was a repeat of DTP) and HTML which is a language, not a type of software could not be awarded any marks.



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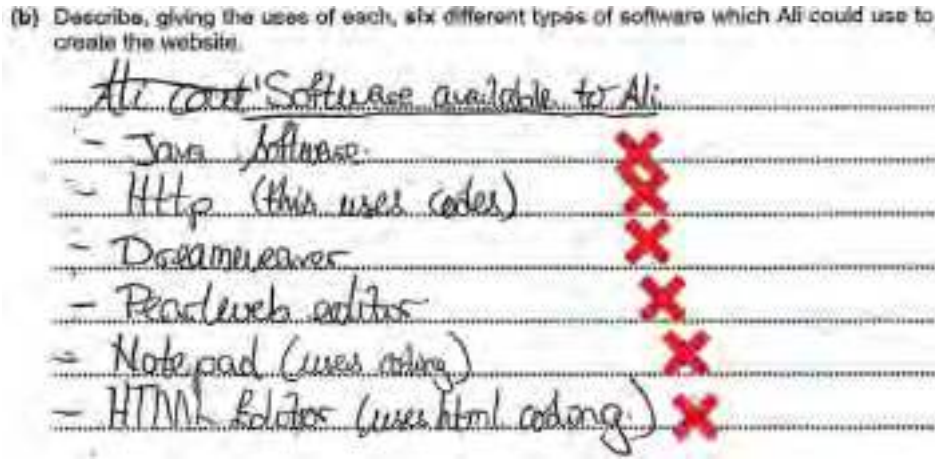
## Example candidate response – unclassified


(b) Describe, giving the uses of each, six different types of software which Ali could use to create the website.

Ali can't Software available to Ali.
- Java Software.
- Http (this uses codes)
- Dreamweaver
- Pearlweb editor
- Notepad (uses coding)
- HTML Editor (uses html coding)

## Examiner comment – unclassified

It was felt necessary to include this candidate response as it was typical of those candidates who did not score any marks for this question and a guide to centres for their candidates to avoid this type of response. In essence, the response shown did not answer the question asked for the following reasons:

- The question specifically asked for a description whereas the candidate's answers were far too brief and were often the equivalent of one word answers.
- The question also specifically asked for a use of each type of software which the candidate appeared to ignore.
- Many of the candidate's answers were brand names which are not allowed by the syllabus.

A grade E candidate would be expected to gain at least two marks for this question.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# Question 3 (c)

Discuss the advantages and disadvantages to a company of advertising on somebody else's website rather than creating their own website.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **3 (c)** | **Five** from:<br>It is cheaper than paying/employing a programmer/designer to create/ maintain it.<br>A Pop-up instantly grabs the attention of the customer.<br>Pop-ups may create unhappy customers who may avoid that company in future/will have poor impression of the company/will tend to ignore them.<br>Customers will use pop-up blocking (software) which doesn't allow them to appear.<br>Pop-unders are small windows placed underneath the web page being accessed.<br>Don't appear to users until they close the page they are working on.<br>Are not removed by pop-up blocking.<br>The customer regards pop-unders as less of an inconvenience than pop-ups.<br>Pop-ups and pop-unders can both be linked to the organisation's own website.<br>Can make their own website better suited to their needs.<br>Own website has shorter delay in updating/improving advertising.<br>Company doesn't have as much control over the host's website as it would over its own.<br>May be so many other companies' advertising on host website the company's may not be seen/not as much advertising can be used/limited space available.<br>More people may see it if it's on someone else's website.<br>One mark is available for reasoned conclusion. | [5] |

## General comment

Grade A candidates would be expected to gain at least four marks for this question. Grade C candidates would be expected to gain at least three marks and grade E candidates would be expected to gain at least two marks.



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## Example candidate response – grade A

(c) Discuss the advantages and disadvantages to a company of advertising on somebody else's website rather than creating their own website.

If they use pop up which grasps user attention, but user could have popup block software, so it can't be appeared. they could use pop under, ~~which is appeared behind~~ which is ~~don't~~ can't be blocked by pop up ~~block~~ block software. but it may upset the user, and so he won't ~~use th~~ use these product. also they could put their company name in online directory, which is cost more money. I do think they should other website rather than own website, as the workers will need to be retrained, and which costly

[5]

## Examiner comment – grade A

The candidate was given credit for matching or nearly matching the following mark points:

- More people may see it if it's on someone else's website.
- A pop-up instantly grabs the attention of the customer.
- Pop-ups may create unhappy customers who may avoid that company in future/will tend to ignore them.
- Customers will use pop-up blocking (software) which doesn't allow them to appear.

The first point, its being cheaper, omitted the key point about how it would be cheaper. Unfortunately the candidate spent a lot of space writing about customers ignoring the advertising and avoiding the website in future which was regarded as the same point about customers being negative about this form of advertising.


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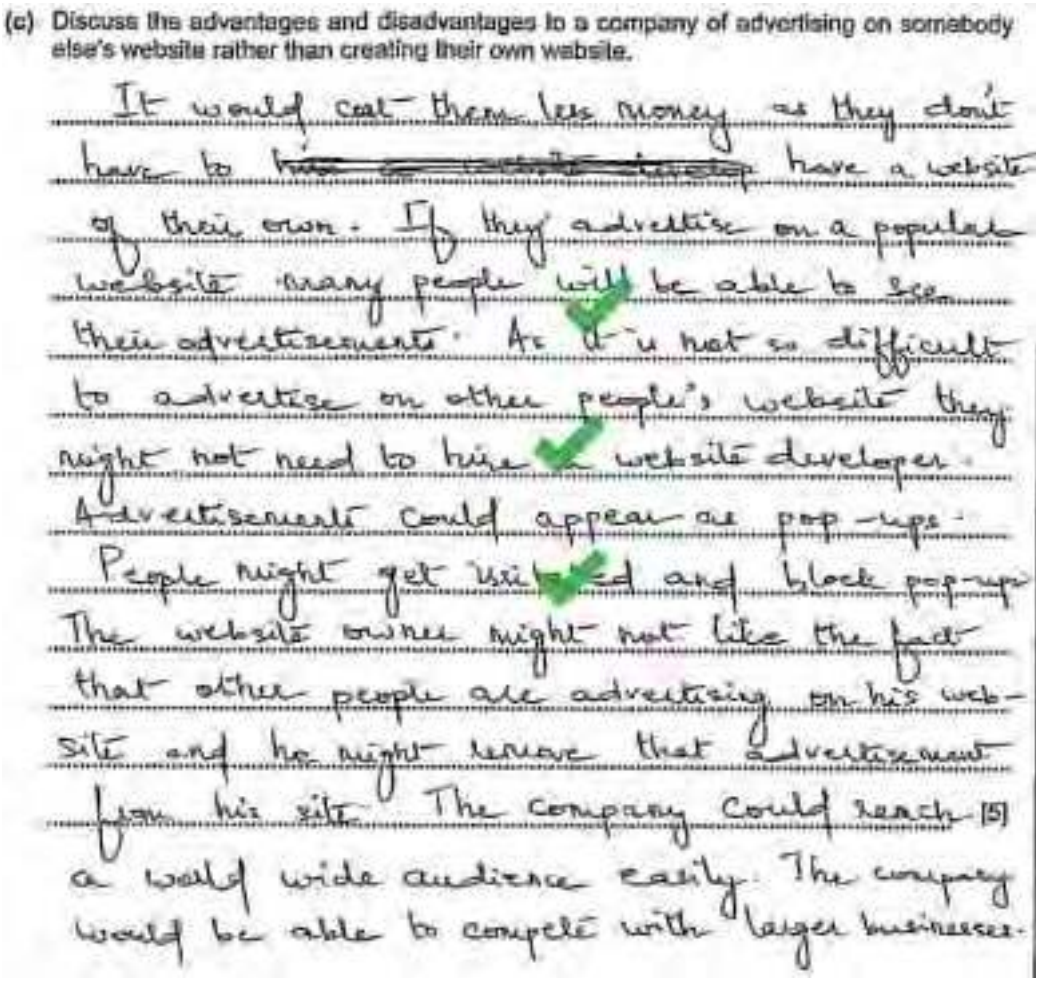
## Example candidate response – grade C

(c) Discuss the advantages and disadvantages to a company of advertising on somebody else's website rather than creating their own website.



It would cost them less money as they don't have to [illegible] have a website of their own. If they advertise on a popular website many people will be able to see their advertisements. As it is not so difficult to advertise on other people's website they might not need to hire a website developer. Advertisements could appear as pop-ups. People might get irritated and block pop-ups. The website owner might not like the fact that other people are advertising on his website and he might remove that advertisement from his site. The company could reach [5] a world wide audience easily. The company would be able to compete with larger businesses.

## Examiner comment – grade C

The candidate first of all mentioned costing less money but it was not until later in the answer that an explanation how was given. The point about more people may see it if it's on someone else's website was made but was then repeated in the final sentence. Pop-up blocking was also written about. The mark points met were therefore:

- More people may see it if it's on someone else's website.
- Customers will use pop-up blocking (software) which doesn't allow them to appear.
- It is cheaper than paying/employing a programmer/designer to create/maintain it.



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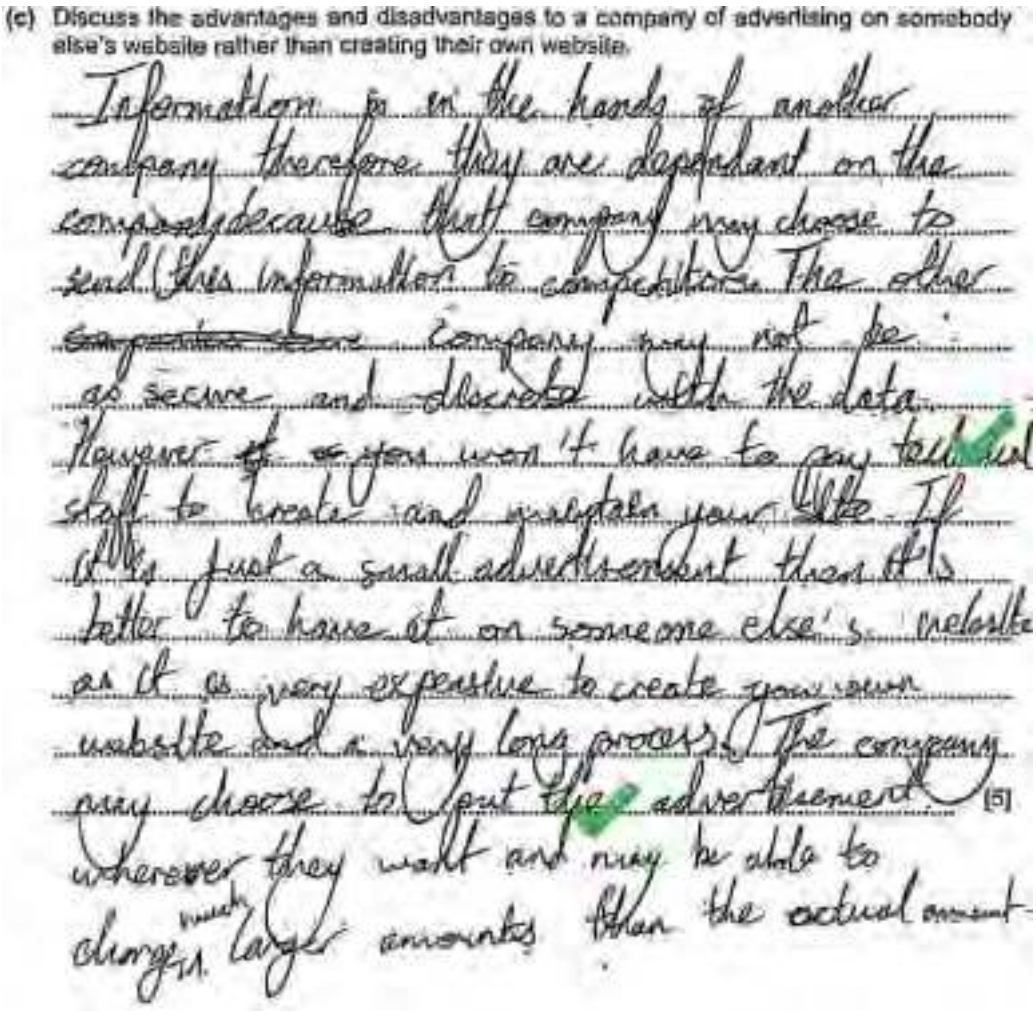
## Example candidate response – grade E

(c) Discuss the advantages and disadvantages to a company of advertising on somebody else's website rather than creating their own website.




## Examiner comment – grade E

The candidate wrote a lot in the early part of the answer about companies passing on information which did not answer the question. Later on in the answer the candidate wrote more but only really made the points:

- It is cheaper than paying/employing a programmer/designer to create/maintain it.
- May be so many other companies' advertising on host website there will be limited space available.

These points were just written about at great length without making any new points.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# Question 3 (d)

Give the advantages of using flyers to advertise the company locally.

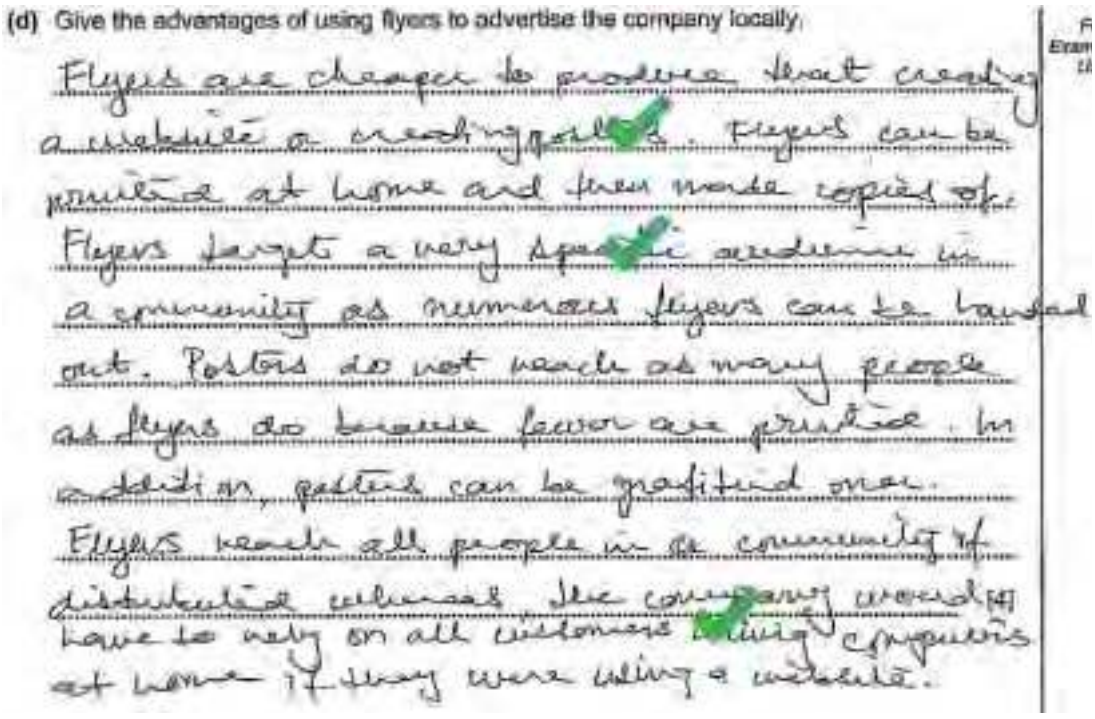
## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **3 (d)** | **Four** from:<br>Can be produced using own PCs and printer.<br>Flyer doesn't take very long to produce.<br>You can distribute them so that they only go to the people you want to see them.<br>It is a cheaper method than creating a web page/paying a company to advertise on their website/advertising on local radio/television.<br>Prospective customers may not have computers/internet/regular electricity supply.<br>You can target specific groups/Can't guarantee all the intended audience would see a poster/web site. | [4] |

## General comment

Grade A candidates would be expected to gain at least three marks for this question. Grade C candidates would be expected to gain at least two marks and grade E candidates would be expected to gain at least one mark.

## Example candidate response – grade A


(d) Give the advantages of using flyers to advertise the company locally.

Flyers are cheaper to produce than creating a website or reading boards. Flyers can be printed at home and then made copied of. Flyers target a very specific audience in a community as numerous flyers can be handed out. Posters do not reach as many people as flyers do because fewer are printed. In addition, posters can be graffitied over. Flyers reach all people in the community if distributed widespread like company would have to rely on all customers having computers at home if they were using a website. [4]



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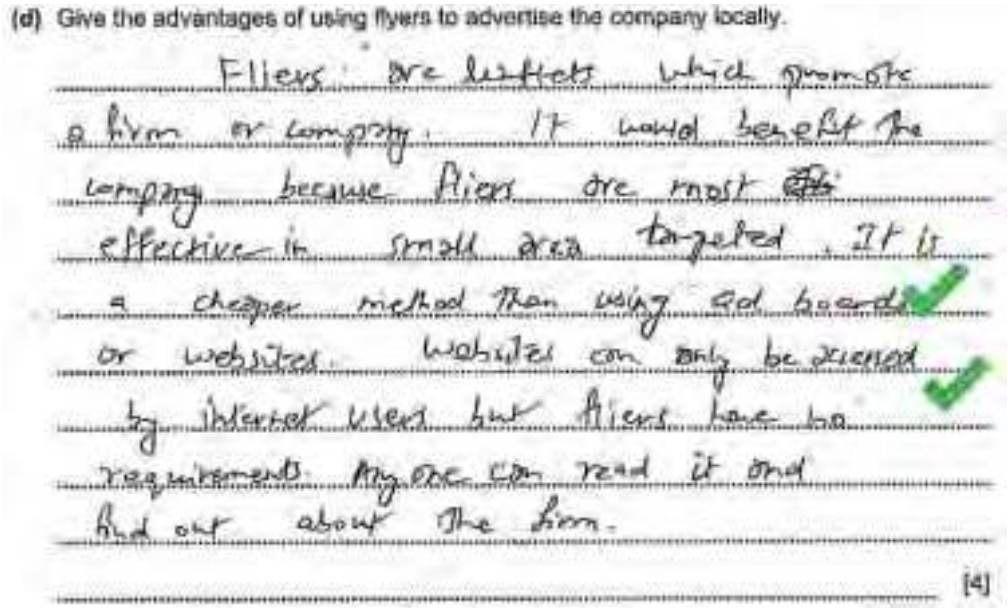
## Examiner comment – grade A

The candidate made three good points equivalent to the following mark scheme answers:

- It is a cheaper method than creating a web page.
- You can target specific groups.
- Prospective customers may not have computers.

The candidate was given the benefit of the doubt over targeting despite the misunderstanding of the question. It is not the quantity that enables groups to be targeted but the fact that because people are distributing them to specific people then the distributors can generally ensure that only the target group receive them. The answer also contained a statement about posters not reaching as many people as flyers because fewer are printed. This is not necessarily true as it could be argued that a lot of posters could be produced and displayed so that they cover as large an area than could be achieved by distributing flyers. The argument about graffiti was not expanded in to why the candidate considered this to be an advantage of flyers.

## Example candidate response – grade C



(d) Give the advantages of using flyers to advertise the company locally.

Fliers are leaflets which promote a firm or company. It would benefit the company because fliers are most effective in small area targeted. It is a cheaper method than using ad boards or websites. Websites can only be viewed by internet users but fliers have no requirements. Anyone can read it and find out about the firm.

[4]

## Examiner comment – grade C

The candidate made a very generalised start to the answer, writing that flyers are most effective in a small area targeted without saying how this is the case. The candidate went on to write that it was cheaper than creating websites and flyers would not need customers to have a computer.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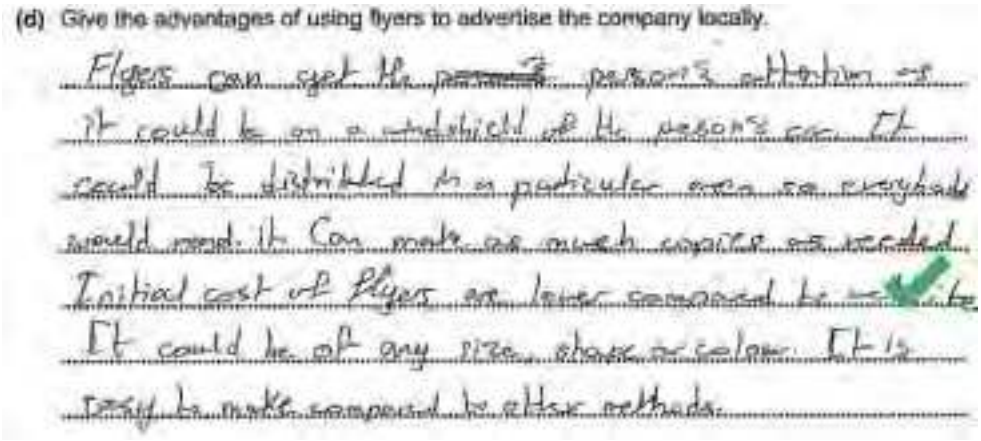
## Example candidate response – grade E


(d) Give the advantages of using flyers to advertise the company locally.

Flyers can get the person's attention as it could be on a windshield of the person's car. It could be distributed in a particular area so everybody would read it. It can make as much copies as needed. Initial cost of flyers are lower compared to website. It could be of any size, shape or colour. It is easy to make compared to other methods.

## Examiner comment – grade E

The candidate made a number of vague points without specifically giving any of the points on the mark scheme. Comments such as 'everybody would read it' whilst not being a specific mark point is not necessarily true or necessary. Many would be thrown away without reading them. There was no mention of targeting specific groups. Can make as many copies as needed is not an advantage. 'Initial cost of flyers is lower compared to website' was worth a mark. 'It could be of any shape or colour' is not a particular advantage. 'Is easy to make' is not worth a mark.



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# Question 4 (a)

Describe the features of a well-designed online shopping website.

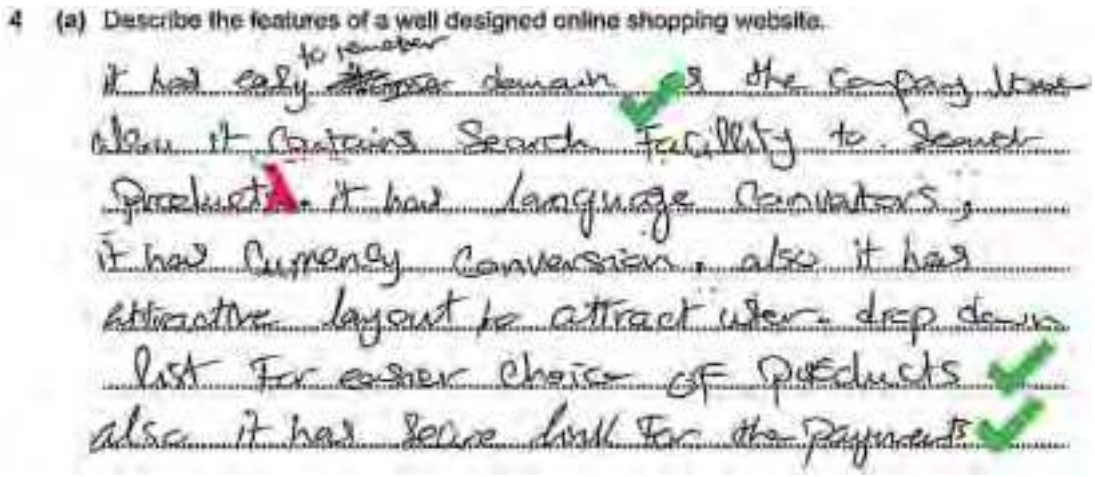
## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **4 (a)** | **Four** features from:<br>An easy-to-remember domain name.<br>A secure method of accepting payments.<br>Descriptions/pricing/photos of goods.<br>Usernames and passwords to make the system secure.<br>Customers are able to contact shop directly via e-mail.<br>Allows customers to make use of their orders stored in a database.<br>Allows customers to see their order and maintain their own accounts.<br>A shopping basket to hold goods you are going to buy.<br>Prospective customers should be able to use a temporary shopping basket if they are a 'guest'.<br>Permanent shopping basket if they are returning customers.<br>Searches and advanced searches can be carried out easily.<br>Allow customers to progress smoothly to the checkout/navigate from category to category easily.<br>Orders can be tracked.<br>Wishlists which enable users to store the goods they might want to buy in the future.<br>'People who bought A also bought B' recommendations. | [4] |

## General comment

Grade A candidates would be expected to gain full marks for this question. Grade C candidates would be expected to gain at least two marks and grade E candidates would be expected to gain at least one mark.

## Example candidate response – grade A


4 (a) Describe the features of a well designed online shopping website.

it had easy to remember domain ✓ the company name also it contains search facility to search products it had language convertors, it had currency conversion, also it has attractive layout to attract user. drop down list for easier choice of products ✓ also it has secure hall for the payments ✓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# Scenario 3

Sellafield food shops is a national chain of supermarkets in the UK. They have recently implemented a website for their customers, who can now order their shopping online and have it delivered to their home.

They have also created an overseas call centre so that if customers have problems with the website they can contact the company to fix these problems. The management of the call centre is to introduce shorter working periods (shifts) due to pressure from the workers.

## Examiner comment – grade A

The candidate gained marks for the following descriptions of features:

- An easy-to-remember domain name (first sentence).
- Searches and advanced searches can be carried out easily (mention of drop down lists for easier choice of products – the second sentence of the answer would not gain a mark on its own as it did not say easily).
- A secure method of accepting payments.

The candidate was not given credit for language conversion or currency conversion as the scenario was specific to the UK where there is only one currency. In any event it was felt that a **well-designed** online shopping website would ask customers for their preferred language and also would display prices of individual items in the various currencies, such as Euros, as and if necessary.

## Example candidate response – grade C

4 (a) Describe the features of a well designed online shopping website.

A well designed online shopping website will be easy to navigate.
It will display pictures of the products as well as there prices and names
It will be able to save food shopping lists
It will have to be well designed with a friendly user interface.
It will have to be safe and trustworthy.

[4]

## Examiner comment – grade C

The candidate wrote about 'easy to navigate' which was too general. The answer needed to say from category to category or a similar phrase. Marks were awarded for the second and third points which matched the mark scheme points:

- Descriptions/pricing/photos of goods.
- Allows customers to make use of their orders stored in a database (the candidate was given the benefit of the doubt for writing 'it will be able to save food shopping lists')

However, the candidate then reverted to general answers such as a 'well designed with a friendly user interface' and it being 'safe and trustworthy'.



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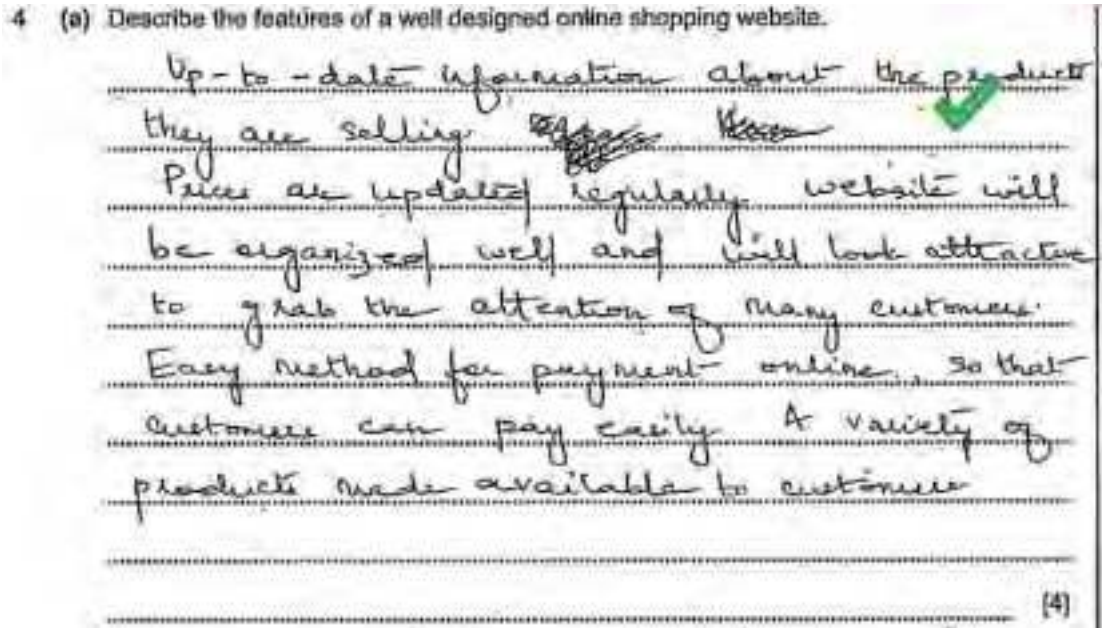
## Example candidate response – grade E


4 (a) Describe the features of a well designed online shopping website.

Up-to-date information about the product they are selling.
Prices are updated regularly. website will be organized well and will look attractive to grab the attention of many customers.
Easy method for payment online, so that customers can pay easily. A variety of products made available to customers

[4]

## Examiner comment – grade E

The candidate gained a mark for writing that information about each product would be needed. The remaining points made by the candidate were too vague to be considered as relating to any points on the mark scheme. Prices being updated regularly is not a specific feature of a website but more to do with its maintenance. 'Organised well', 'look attractive to grab the attention of many customers', 'easy method of payment' lacked the specific detail required at this level. 'A variety of products' is more to do with the shop itself rather than the website.

# Question 4 (b)

Explain the security issues involved with such a website.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **4 (b)** | **Three** from:<br>The customer's personal data/payment details can be intercepted by a hacker.<br>Personal data/payment details could be used by the hacker to defraud the shop.<br>Personal data/payment details could be used by the hacker to defraud the customer.<br>Personal data/payment details could be used to log on to the shop's computer system and order a large number of products....<br>.....products can be dispatched to another address other than the credit owner's.<br>The hacker can sell on the goods.<br>Credit card details can be used to make purchases at a number of other shops.. | [3] |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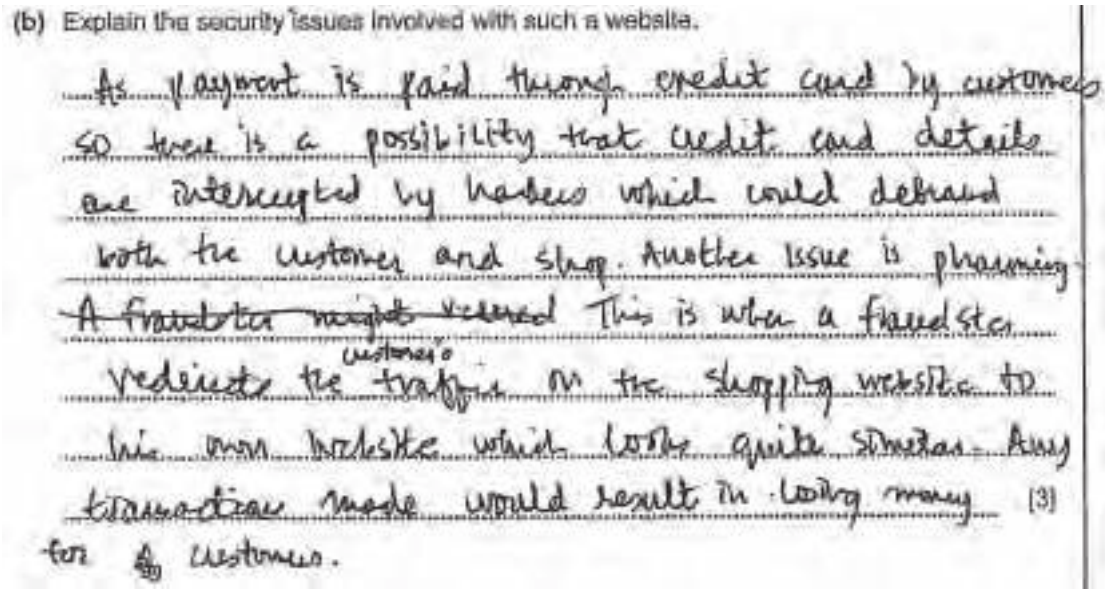
## General comment

Grade A candidates would be expected to gain full marks for this question. Grade C candidates would be expected to gain at least two marks and grade E candidates would be expected to gain at least one mark.

## Example candidate response – grade A



(b) Explain the security issues involved with such a website.

As payment is paid through credit card by customers so there is a possibility that credit card details are intercepted by hackers which could defraud both the customer and shop. Another issue is pharming. ~~A fraudster might accessed~~ This is when a fraudster redirects the customer's traffic on the shopping website to his own website which looks quite similar. Any transactions made would result in losing money [3] for the customers.

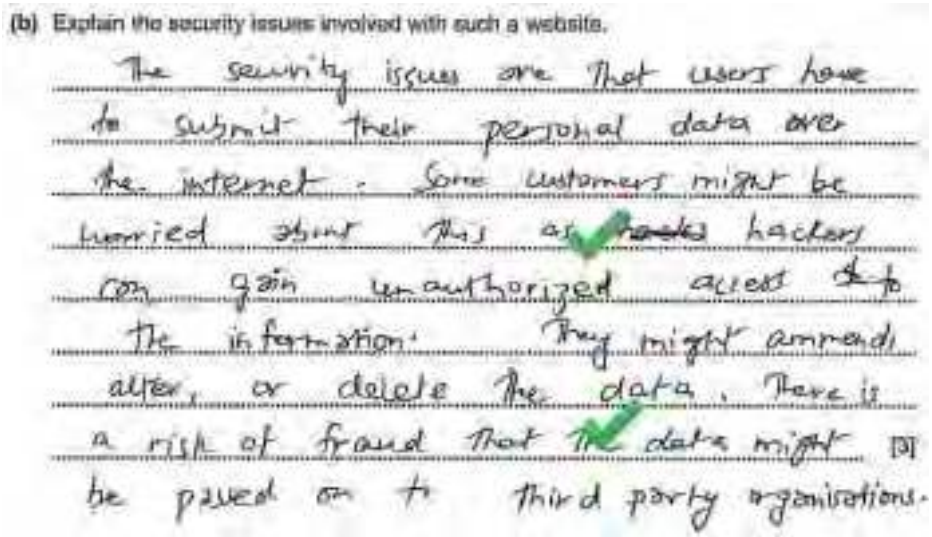
## Examiner comment – grade A

The candidate gained three marks for a very succinct answer. The three marking points made were:

- The customer's personal data/payment details can be intercepted by a hacker.
- Personal data/payment details could be used by the hacker to defraud the shop.
- Personal data/payment details could be used by the hacker to defraud the customer.

These were given in the first two and a half lines of the answer.

## Example candidate response – grade C



(b) Explain the security issues involved with such a website.

The security issues are that users have to submit their personal data over the internet. Some customers might be worried about this as ~~hacks~~ hackers can gain unauthorized access to the information. They might amend, alter, or delete the data. There is a risk of fraud that the data might be passed on to third party organisations. [3]

## Examiner comment – grade C

This candidate unlike the grade A candidate took six lines just to say that personal details could be intercepted by a hacker. Despite not stipulating whether the customer or the bank would be defrauded, the candidate was given the benefit of the doubt and awarded a further mark for showing understanding that the hacker would misuse the data for fraudulent purposes.



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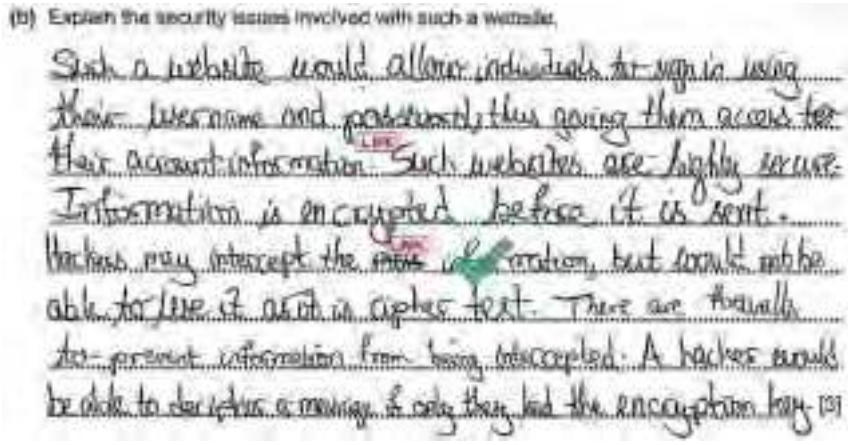
## Example candidate response – grade E


(b) Explain the security issues involved with such a website.

Such a website would allow individuals to sign in using their username and password, thus giving them access to their account information. Such websites are highly secure. Information is encrypted before it is sent. Hackers may intercept the information, but would not be able to see it as it is cipher text. There are firewalls to prevent information from being intercepted. A hacker would be able to decipher a message if only they had the encryption key. [3]

## Examiner comment – grade E

As with the grade C candidate this answer basically consisted of just the one point about personal details being intercepted. Writing about encryption and firewalls was not answering the question. These are methods of prevention not issues themselves.

# Question 4 (c)

Discuss whether customers should feel concerned about using this online shopping system.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **4 (c)** | **Six** from:<br>Personal data are encrypted when they are transferred over the Internet....<br>…If a hacker intercepts data is unable to decipher the meaning of the data.<br>…The data can only be decoded if the receiving network server has the correct encryption key.<br>More common for fraudsters to use methods such as phishing, pharming.<br>More common to attach spyware in order to obtain customer data.<br>If customer's credit or debit card is used fraudulently, in many countries the card company must refund them.<br>Customer's have consumer rights such as refunds for faulty goods.<br>Generally, customers only ever use reputable sites.<br>Hackers can intercept personal data/payment details.<br>Could be a fraudulent website.<br>You can't check the quality of the goods/you can't be sure the goods are in stock/goods don't arrive/are of the wrong quality/wrong goods delivered.<br>The order confirmation may be delayed/not be received.<br>Employees who have access to the payment details must sign a duty of confidence document.<br><br>One mark is available for reasoned conclusion. | [6] |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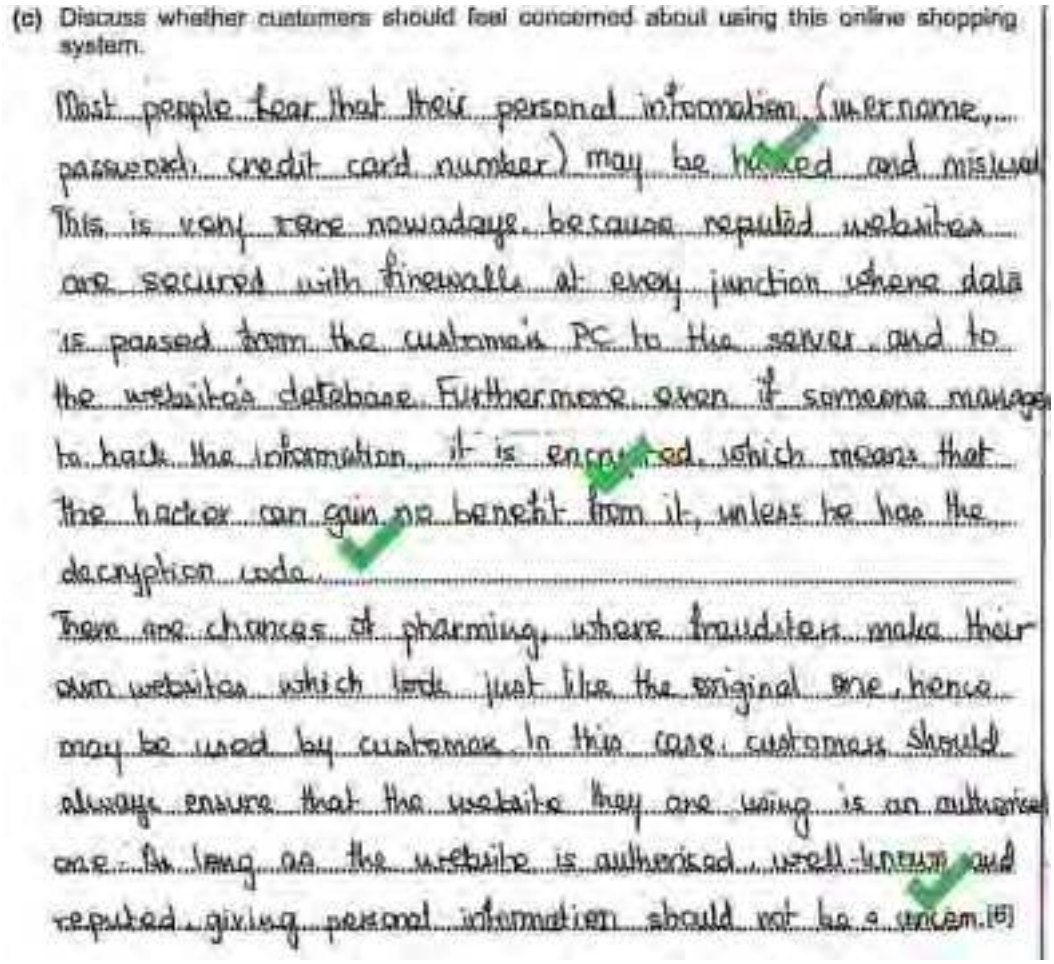
## General comment

Grade A candidates would be expected to gain at least four marks for this question. Grade C candidates would be expected to gain at least three marks and Grade E candidates would be expected to gain at least two marks.

## Example candidate response – grade A



(c) Discuss whether customers should feel concerned about using this online shopping system.

Most people fear that their personal information (username, password, credit card number) may be hacked and misused. This is very rare nowadays because reputed websites are secured with firewalls at every junction where data is passed from the customer's PC to the server and to the website's database. Furthermore even if someone manages to hack the information it is encrypted which means that the hacker can gain no benefit from it, unless he has the decryption code.

There are chances of pharming, where fraudsters make their own websites which look just like the original one, hence may be used by customers. In this case, customers should always ensure that the website they are using is an authorised one. As long as the website is authorised, well-known and reputed, giving personal information should not be a concern. [5]

## Examiner comment – grade A

The candidate made four good points but also made just a general point about firewalls without saying why the use of these should allay the customer's concerns other than websites are secured, which is too vague at this level. The candidate spent the last paragraph stating that the customer should avoid using websites that may be fraudulent without actually writing that this is what customers generally do.

The points met were:

- Hackers can intercept personal data/payment details.
- Personal data are encrypted when they are transferred over the internet.
- The data can only be decoded if the receiving network server has the correct encryption key (the candidate was given the benefit of the doubt when saying a hacjer would not be able to use the data without the decryption code).
- It could be a fraudulent website.



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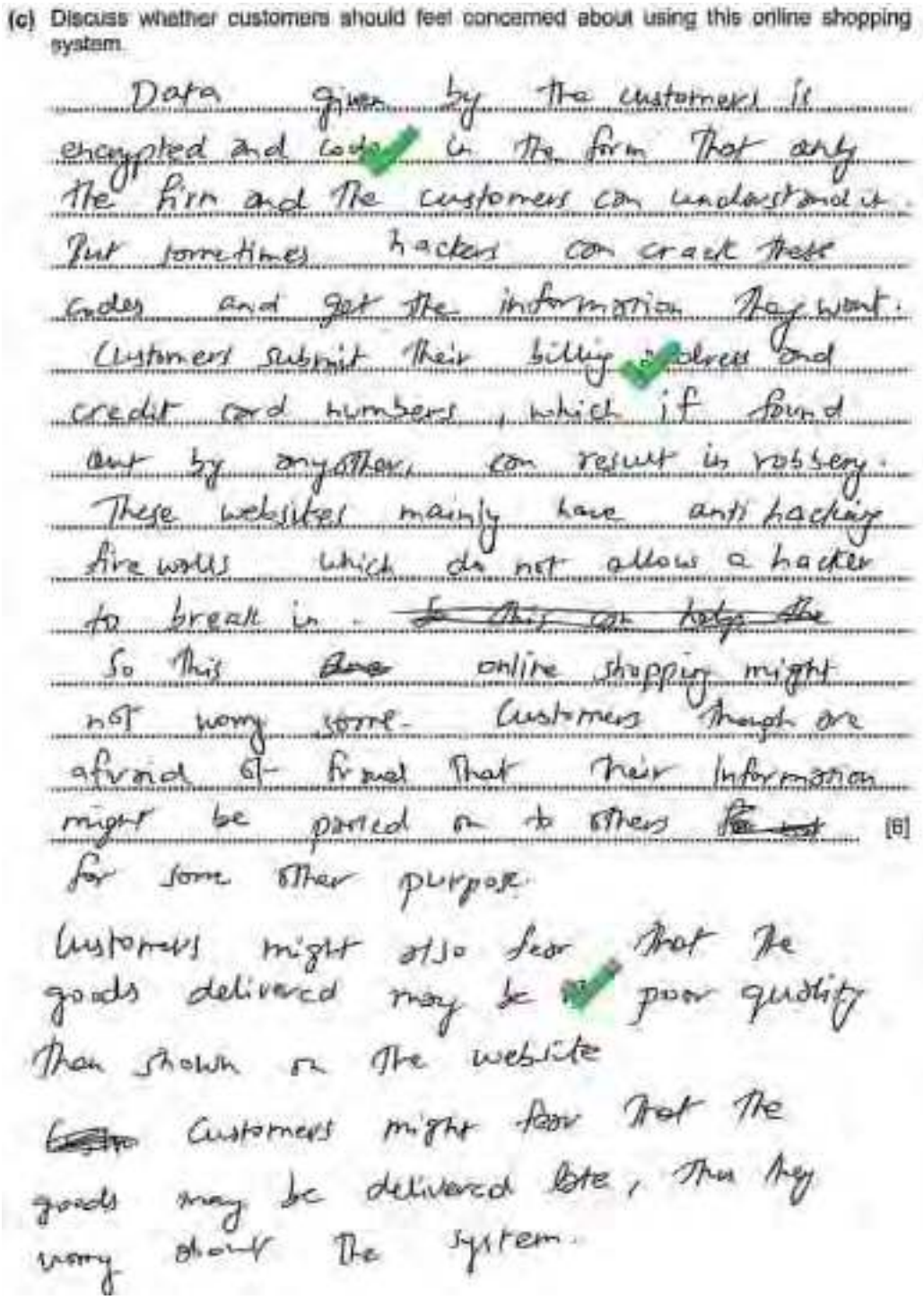
## Example candidate response – grade C

(c) Discuss whether customers should feel concerned about using this online shopping system.




## Examiner comment – grade C

The candidate made three points in a very lengthy answer. These were:

- Personal data are encrypted when they are transferred over the internet (the candidate did not mention personal details at the point that encryption was mentioned but was given the benefit of the doubt because mention of billing address and credit card number came later).
- Hackers can intercept personal data/payment details.
- Goods don't arrive/are of the wrong quality.

The last point about late delivery was felt to be the same idea as the point above and not the same as 'order confirmation may be delayed'. The point about firewalls was felt to be too vague at this level. At A Level, candidates should know that a firewall doesn't necessarily prevent hacking as, in simple terms, it is the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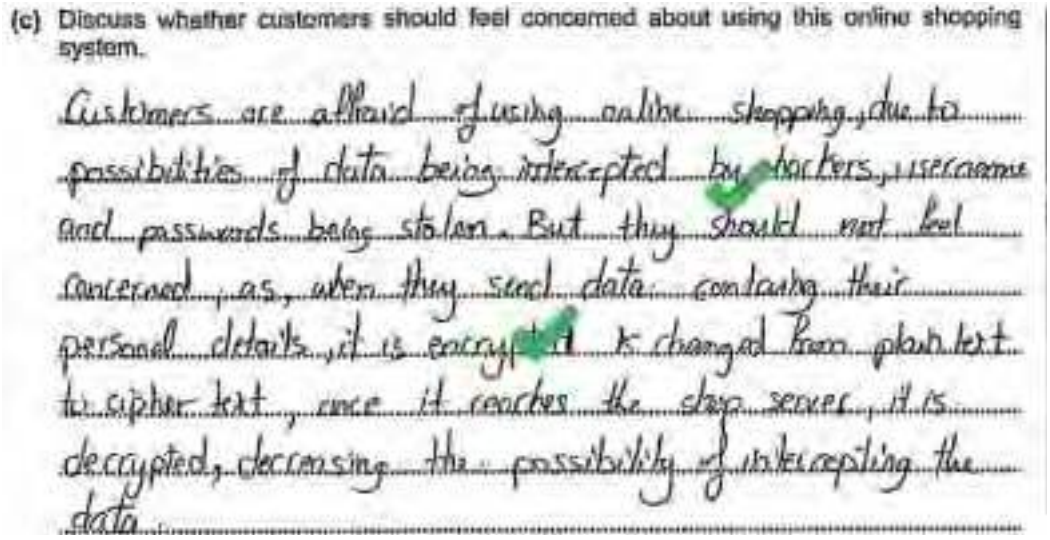
computers that are being denied access to a network. Hackers can, of course, still gain access by hacking into a computer which is acceptable to the network server and consequently forwarding a request to the network through that computer.

## Example candidate response – grade E


(c) Discuss whether customers should feel concerned about using this online shopping system.

Customers are afraid of using online shopping, due to possibilities of data being intercepted by hackers, usercname and passwords being stolen. But they should not feel concerned, as, when they send data containg their personal details, it is encrypted & changed from plain text to cipher text, once it reaches the shop server, it is decrypted, decreasing the possibility of intercepting the data.

## Examiner comment – grade E

The candidate made two good points about hackers intercepting personal data but argued that such data is encrypted. The candidate mistakenly thought that encryption prevented data from being intercepted.

# Question 5 (a)

Describe the features of Computer Telephony Integration (CTI) software which will be used in the call centre.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **5 (a)** | **Five** from:<br>Phone calls are processed using interactive voice response (IVR) software.<br>Does not require a human response.<br>Automatic services such as giving account information can be accessed by the caller.<br>CTI allows computers to direct the phone call to appropriate operator.<br>Calls can be queued/put on hold.<br>Combines the data and voice input to the system.<br>Displays the caller's number/number dialled.<br>Multiple dialling techniques/fast dial/ preview/predictive dial.<br>Description of first-party call control.<br>Description of third-party call control. | [5] |



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## General comment

Grade A candidates would be expected to gain at least four marks for this question. Grade C candidates would be expected to gain at least three marks and Grade E candidates would be expected to gain at least two marks.

## Example candidate response – grade A

5 (a) Describe the features of Computer Telephony Integration (CTI) software which will be used in the call centre.

CTI is used to integrate all parts of the system together. It combines voice and data input to the system. It displays features like the number dialled, caller's number. It also directs calls to the appropriate operator having the appropriate expertise. CTI software on In this scenario as it is a large call centre so CTI will take the form of third party control. On this CTI helps in a way that it allows supervisors to intervene if a call proves too difficult for the operator to handle.

## Examiner comment – grade A

The candidate made four good points:

- Combines the data and voice input to the system.
- Displays the caller's number/number dialled.
- CTI allows computers to direct the phone call to appropriate operator.
- Allowing supervisors to intervene if the call proves too complex for the operator to handle. (A feature of third-party call control.)


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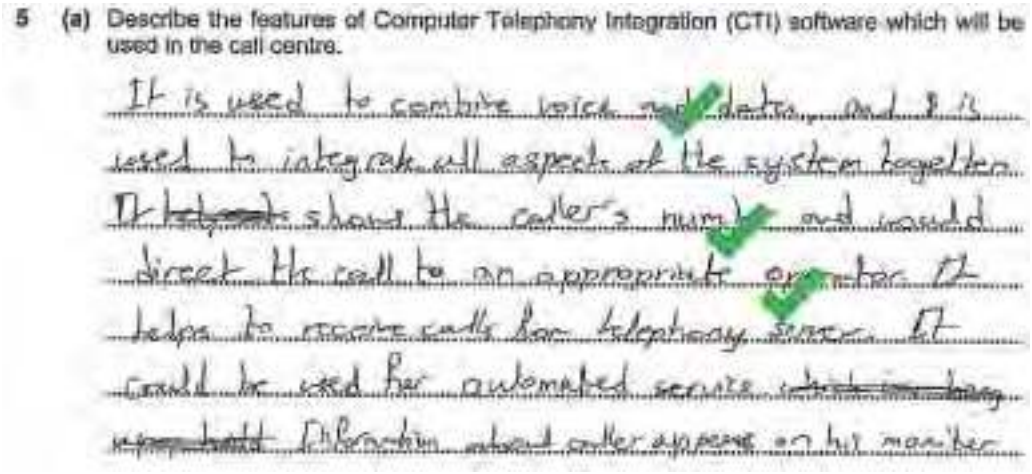
## Example candidate response – grade C


5 (a) Describe the features of Computer Telephony Integration (CTI) software which will be used in the call centre.

It is used to combine voice and data, and it is used to integrate all aspects of the system together. It displays the caller's number and would direct the call to an appropriate operator. It helps to organise calls for telephony servers. It could be used for automated service which displays information about the caller appears on his monitor.

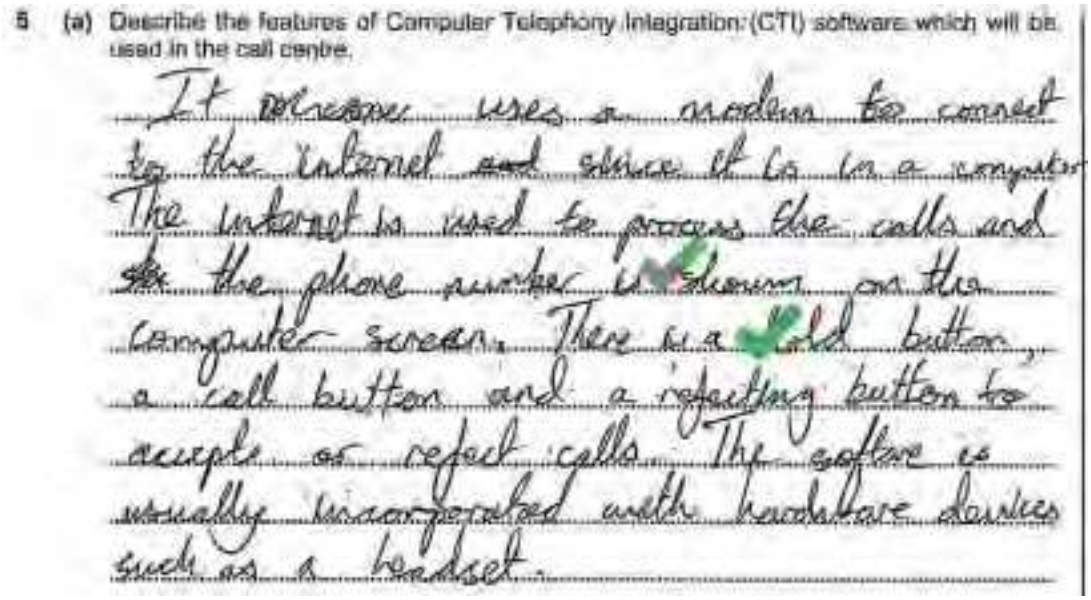
## Examiner comment – grade C

The candidate made three good points:

- Combines the data and voice input to the system.
- Displays the caller's number/number dialled.
- CTI allows computers to direct the phone call to appropriate operator.

The candidate's point 'it could be used for automated service' was too vague and the final point about displaying information about the caller was rather vague. Information about the caller such as the phone number had already been covered and it was unclear whether the candidate was referring to other information.

## Example candidate response – grade E


5 (a) Describe the features of Computer Telephony Integration (CTI) software which will be used in the call centre.

It receives uses a modem to connect to the internet and stores it to in a computer. The internet is used to process the calls and the phone number is shown on the computer screen. There is a hold button, a call button and a rejecting button to accept or reject calls. The software is usually incorporated with hardware devices such as a headset.

## Examiner comment – grade E

The candidate was confused over how calls are handled by a CTI system and referred to the use of the internet. However, the candidate was given the benefit of the doubt over displaying the caller's number and calls being put on hold to gain two marks. The mention of a 'rejecting button' and hardware associated with the system did not attract any marks.



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# Question 5 (b)

Describe some of the health and safety problems which might occur because of the call centre operators' use of computers.

## Mark scheme

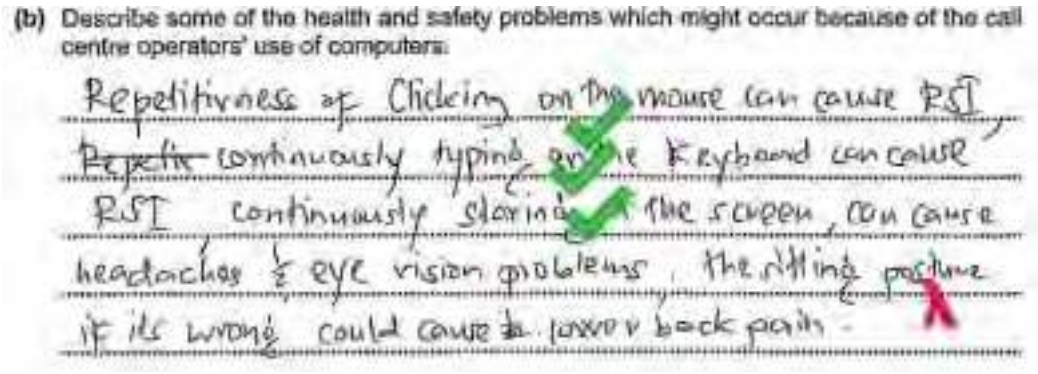
| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **5 (b)** | **Four** from:<br>Staring at a computer screen all day can cause problems with one's sight.<br>Typing at a keyboard continuously can cause RSI.<br>Gripping a mouse and repetitive clicking can cause carpal tunnel syndrome/ RSI<br>Sitting in the same position/with wrong posture all day can cause lower back pain.<br>Staring at a computer screen all day can cause eye strain/headaches.<br>Poor positioning of screen can cause upper back/neck/shoulder pain/ eyestrain/headaches.<br>Glare from screen can cause eye strain/headaches.<br>Too many plugs connected to a socket can be a fire hazard.<br>Bare wires/spilt drinks can cause electrocution.<br>Trailing wires can cause tripping. | [4] |

## General comment

Grade A candidates would be expected to gain at least three marks for this question. Grade C candidates would be expected to gain at least two marks and grade E candidates would be expected to gain at least one mark.

In such a question as this it is expected that A Level candidates go beyond the normal brief IGCSE type answer, and stress the specific cause of the health problems e.g. the continuous or repetitive nature of the action.

## Example candidate response – grade A


(b) Describe some of the health and safety problems which might occur because of the call centre operators' use of computers.

Repetitiveness of Clicking on the mouse can cause RSI
Repetitive continuously typing on the keyboard can cause
RSI continuously staring at the screen, can cause
headaches & eye vision problems. The sitting posture
if its wrong could cause to lower back pain.

## Examiner comment – grade A

The candidate gave three of the required answers. The candidate referred to:

- Repetitive clicking of the mouse.
- Continuously typing on the keyboard.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- Continuously staring at the screen.

It is important that candidates show that they understand that it is the ***long term*** and ***repetitive*** use of computers that causes health problems. It was unfortunate that the candidate failed to make this distinction when referring to sitting posture.

## Example candidate response – grade C

(b) Describe some of the health and safety problems which might occur because of the call centre operators' use of computers.

→ Many users may develop back aches due to sitting in one position for long hours.

→ Eyesight problems may occur because of staring at a light emitting screen for very long.

→ Carpal tunnel syndrome - a form of RSI - may occur due to the unusual posture of the hands and wrist.

→ Cubital tunnel syndrome may occur at elbow joints, again for unusual posture.

## Examiner comment – grade C

The candidate was more precise in this answer about backache being caused by sitting in the same position for a long time. Similarly credit was given for the description of staring at a screen for a very long time causing eyesight problems.

Unfortunately the description of RSI and cubital tunnel syndrome did not say what specifically cause this. In the event, cubital tunnel syndrome is usually attributed to continuous holding of a telephone in a certain position which is something the call centre operators would not be required to do as they wear headsets to take and make calls.



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## Example candidate response – grade E

(b) Describe some of the health and safety problems which might occur because of the call centre operators' use of computers.

RSI (Repetitive Strain Injury) can occur in the wrists and forearms when using a computer for a long period of time. Two main types of RSI are carpal tunnel sydrom and cubitual tunnel sydrom. Posture problems and eye strain can also occur. If too many plugs are in the same socket there can be a risk of overheating and fire. [4]

## Examiner comment – grade E

The candidate's answer was too vague for RSI as it is the continuous clicking or continuous typing that is important. The descriptions of RSI and posture problems lacked sufficient detail to gain marks. The candidate was, however, awarded a mark for correctly describing a safety problem in detail.

# Question 5 (c)

Describe possible changes to the working patterns of call centre operators caused by the new shift patterns.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **5 (c)** | **Four** descriptions from:<br>Some workers may have to/will have the opportunity – to go part-time.<br>There may be the opportunity to job share.<br>There may be the opportunity for flexible working hours.<br>Compressed hours may become available.<br>Some operators are able to work from home.<br>May lead to more operators being given jobs. | [4] |


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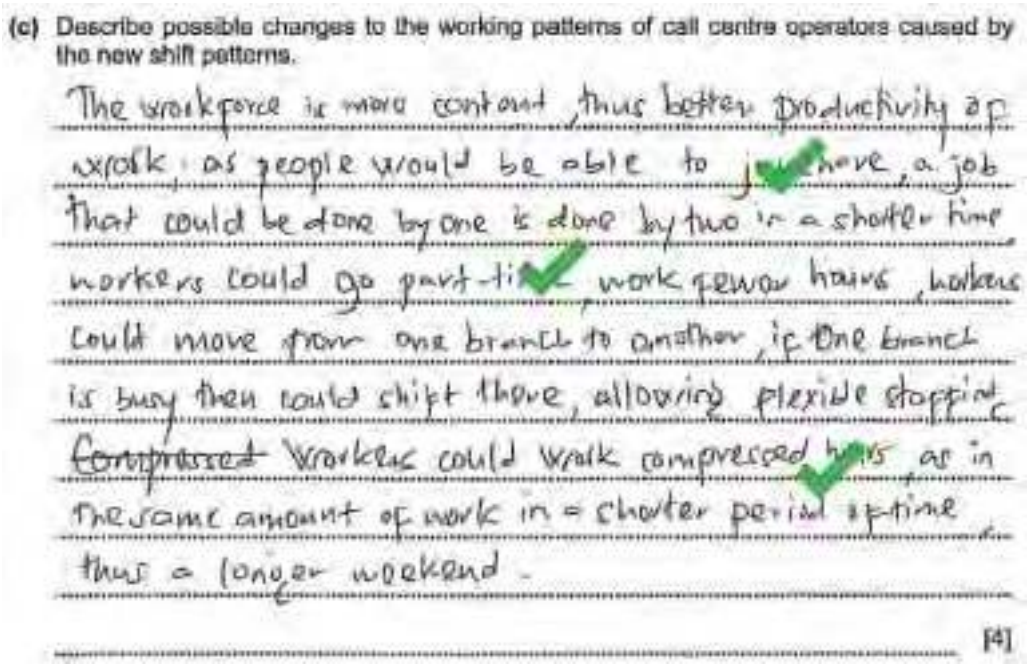
## General comment

Grade A candidates would be expected to gain at least three marks for this question. Grade C candidates would be expected to gain at least two marks and grade E candidates would be expected to gain at least one mark.

## Example candidate response – grade A


(c) Describe possible changes to the working patterns of call centre operators caused by the new shift patterns.

The workforce is more content, thus better productivity at work as people would be able to job share, a job that could be done by one is done by two in a shorter time workers could go part-time work fewer hours, workers could move from one branch to another, if one branch is busy then could shift there, allowing flexible staffing Compressed Workers could work compressed hours as in the same amount of work in a shorter period of time thus a longer weekend.

[4]

## Examiner comment – grade A

The candidate made three points which are on the mark scheme:

- A description of job sharing.
- A description of part-time working.
- A description of working compressed hours.

It was noticeable that the candidate appeared to have rote learnt a mark scheme for the point about moving from branch to branch. A call centre would have no branches as such. This answer has been included in a mark scheme for a different scenario, namely banks, which do have branches and when these branches become overstaffed tellers must have the flexibility to move to another branch where there may be staff needed. In any event, in this scenario reference is made about shortening shifts which would lead to understaffing rather than overstaffing.



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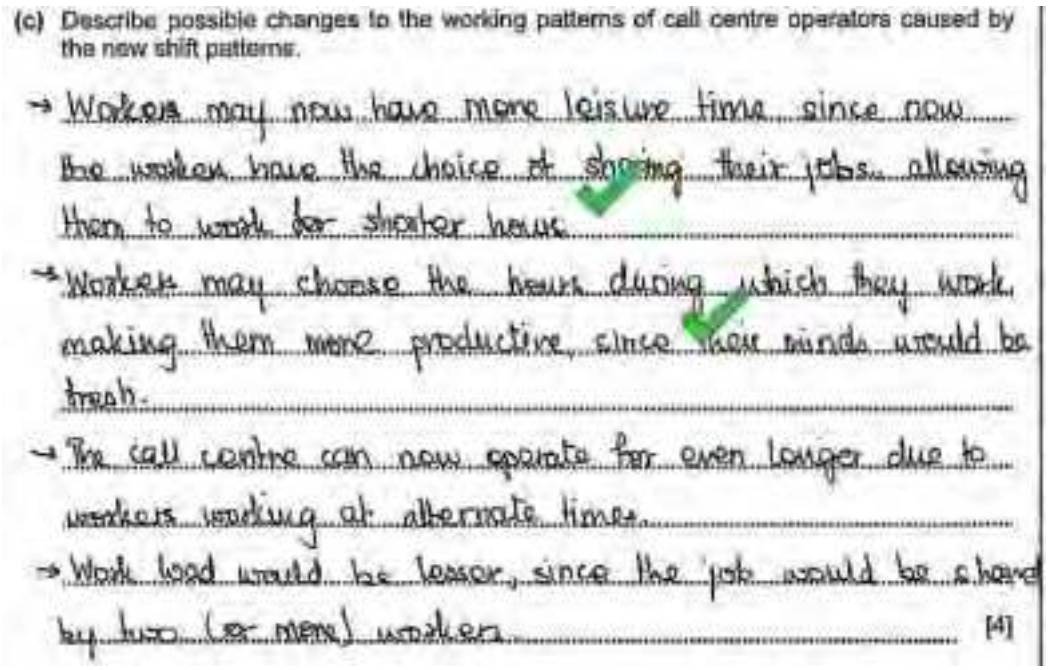
## Example candidate response – grade C



(c) Describe possible changes to the working patterns of call centre operators caused by the new shift patterns.

→ Workers may now have more leisure time since now the workers have the choice of sharing their jobs, allowing them to work for shorter hours.

→ Workers may choose the hours during which they work, making them more productive since their minds would be fresh.

→ The call centre can now operate for even longer due to workers working at alternate times.

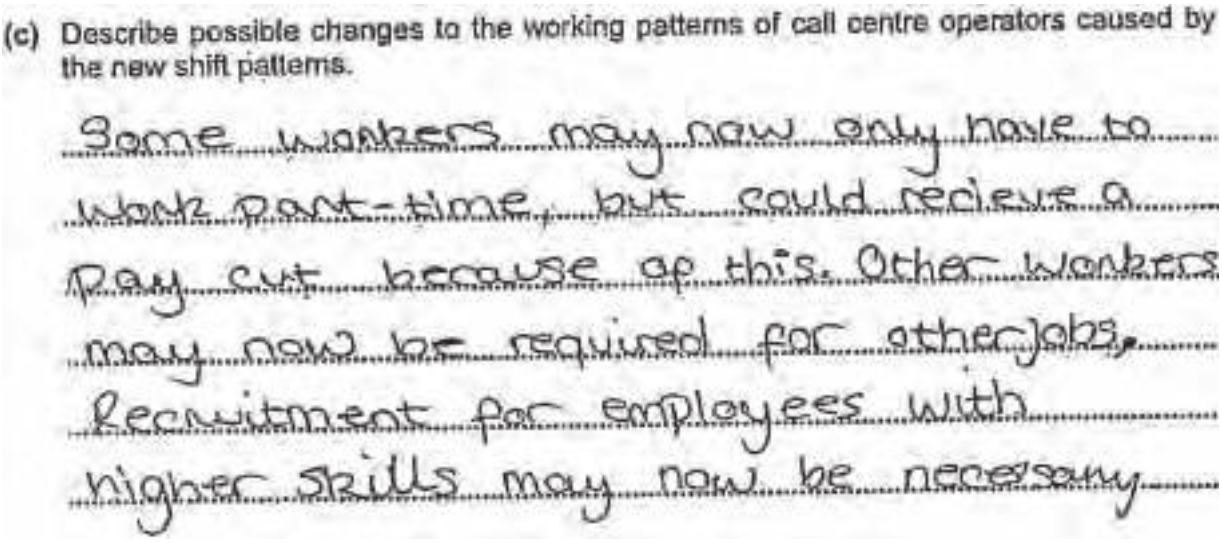
→ Work load would be lesser, since the job would be shared by two (or more) workers. [4]

## Examiner comment – grade C

The candidate started well giving two good descriptions of job sharing and flexible hours.

The third answer had nothing to do with the effect on working patterns and the fourth point was to do with workload rather than the working patterns and the candidate just repeated job sharing which had already gained a mark.

## Example candidate response – grade E



(c) Describe possible changes to the working patterns of call centre operators caused by the new shift patterns.

Some workers may now only have to work part-time, but could recieve a pay cut because of this. Other workers may now be required for other jobs. Recruitment for employees with higher skills may now be necessary.

## Examiner comment – grade E

The candidate made just one valid point related to part-time working. Pay cuts, whilst being extremely unlikely would not be considered a working pattern. Recruitment of employees with higher skills was too vague.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# Scenario 4

Dar Es Salaam High School has recently been formed by joining together six smaller schools. The head teacher wants to have a modern ICT system to administer staff and student records. She has decided to employ a systems analyst to look at the existing systems and recommend a new system.

The system will need to produce hundreds of reports in one session and should be able to find individual records very quickly. Using the results of the analysis of the current system the analyst will need to design the new system. Once the system has been designed and developed, user and technical documentation will need to be produced.

# Question 6 (a)

Other than observation, describe the methods that the systems analyst could use to research the current systems.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **6 (a)** | Distribute/Hand out written questionnaires to system users (to complete)<br>Interview current system users face to face<br>Examining documents <u>used in the current system</u> | <br>[1]<br>[1]<br>[1] |

## General comment

Grade A candidates would be expected to gain full marks for this question. Grade C candidates would be expected to gain at least two marks and grade E candidates would be expected to gain at least one mark.

The essential part of this question was the need for the question to be related to the scenario. As the chief examiner's report said - The answers provided were generally vague descriptions with little reference to teachers and the school. It is surprising to see that despite teachers being the focal point of this scenario as being the 'system users' candidates often referred to 'workers' or 'employees' thereby implying that everybody would be interviewed or given questionnaires rather than the staff concerned. Where candidates mentioned 'staff' it was assumed that they were referring to teachers (who are often referred to as 'members of staff').



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## Example candidate response – grade A

(a) Other than observation, describe the methods that the systems analyst could use to research the current systems.

1) Interviews - system analyst could interview the head teacher about the current system.

2) Questionnaires - these can be given to the staff, and they have to be prepared properly to receive exact answers.

3) Examination of documents. this can let the system analyst identify the inputs, outputs and processing of the current syctem. And see the volume of data present in each type of document. [3]

## Examiner comment – grade A

The candidate gave the required amount of detail required by the mark scheme, namely:

- Interview current system users (the head teacher in this case).
- Distribute/Hand out written questionnaires to system users (staff was interpreted as meaning teachers).
- Examining documents used in the current system.


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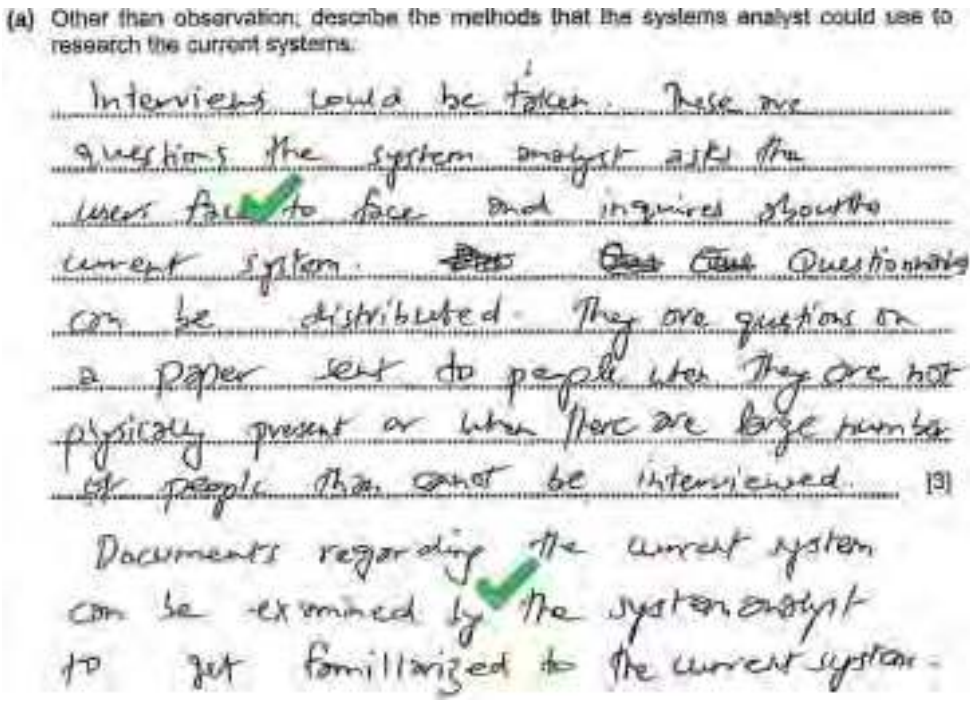
## Example candidate response – grade C



(a) Other than observation, describe the methods that the systems analyst could use to research the current systems.

Interviews could be taken. These are questions the system analyst asks the users face to face and inquires about the current system. ~~Does~~ ~~Case~~ Questionnaires can be distributed. They are questions on a paper sent to people who they are not physically present or when there are large numbers of people that cant be interviewed. [3]

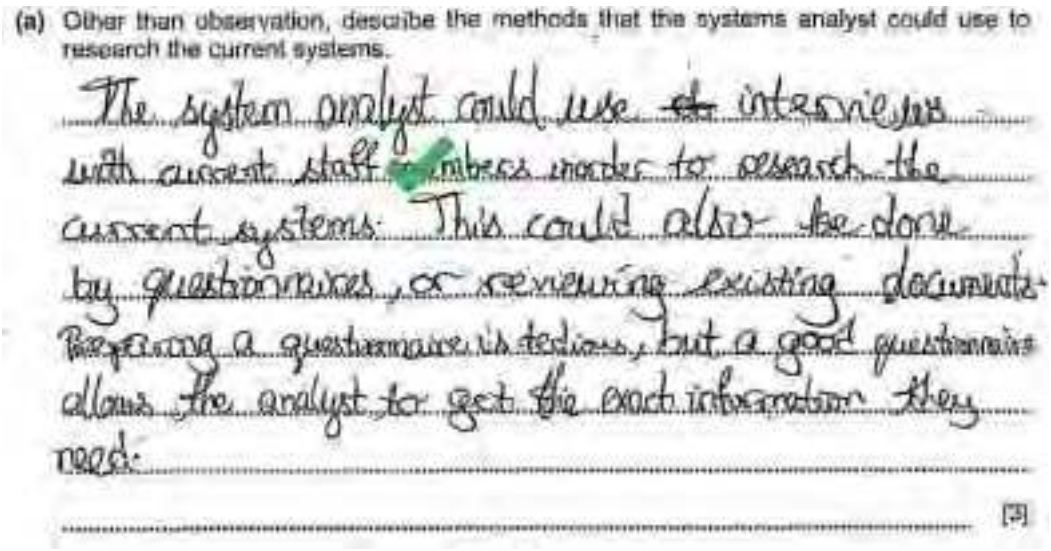
Documents regarding the current system can be examined by the system analyst to get familiarized to the current system.

## Examiner comment – grade C

The first mark was awarded for the candidate mentioning interviews and users and as there was reference to the current system, it was assumed the candidate was referring to system users.

Unfortunately, no such credit could be given for the second answer as it was felt that the use of the term 'people' was too general and vague. A second mark was awarded, however, for examining documents used in the current system.

## Example candidate response – grade E



(a) Other than observation, describe the methods that the systems analyst could use to research the current systems.

The system analyst could use ~~the~~ interviews with current staff members inorder to research the current systems. This could also be done by questionnaires, or reviewing existing documents. Preparing a questionnaire is tedious, but a good questionnaire allows the analyst to get the exact information they need.

[3]

## Examiner comment – grade E

The candidate only made one specific point, that of interviewing staff which were assumed to be teachers. The other point about questionnaires did not specify who would be given these and so the answer was insufficient to gain a mark.



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# Question 6 (b)

Describe **four** different items that the systems analyst will need to include at the design stage. Using the scenario of Dar Es Salaam High School, explain the factors that will influence the choice of each item.

## Mark scheme

<table>
<tr><th>Question Number</th><th>Question (including any source details)</th><th>Part Mark</th></tr>
<tr><td>6 (b)</td><td>Four from each column:
<table>
<tr><th>Item</th><th>Factors: an example of how:</th></tr>
<tr><td>Specifying the required hardware and software</td><td>the volume of data determines the choice of output devices.</td></tr>
<tr><td></td><td>the order that data will be output affects the choice of storage devices.</td></tr>
<tr><td>Designing data collection forms/ screen layouts</td><td>the user requirements influences the format</td></tr>
<tr><td></td><td>the output required from system influences the design</td></tr>
<tr><td></td><td>file structures affect the design</td></tr>
<tr><td>Designing report layouts/ screen displays</td><td>the content and presentation of report layouts/screen displays depend on the requirements of the users</td></tr>
<tr><td>Designing validation routines</td><td>the form of input affects these.</td></tr>
<tr><td></td><td>the file structure affects these.</td></tr>
<tr><td>Designing the required data/file structures/ programming specifications</td><td>the data structures/programming depend on the types of processing</td></tr>
<tr><td></td><td>the file structure depends on the input and output structures</td></tr>
</table></td><td>[8]</td></tr>
</table>

## General comment

Grade A candidates would be expected to gain at least six marks for this question. Grade C candidates would be expected to gain at least four marks and grade E candidates would be expected to gain at least two marks.

Candidates found this question relatively straightforward and several gained marks for describing four items which would be included at the design stage. However, they found it difficult to gain the supplementary marks for explaining the factors that would influence the choice of these items with reference to the scenario. Candidates frequently provided answers which were learnt by rote from either the syllabus or a past mark scheme. Centres are again warned about this practice as it frequently leads to incorrect answers. What might be considered relevant to one scenario is not necessarily relevant to another.


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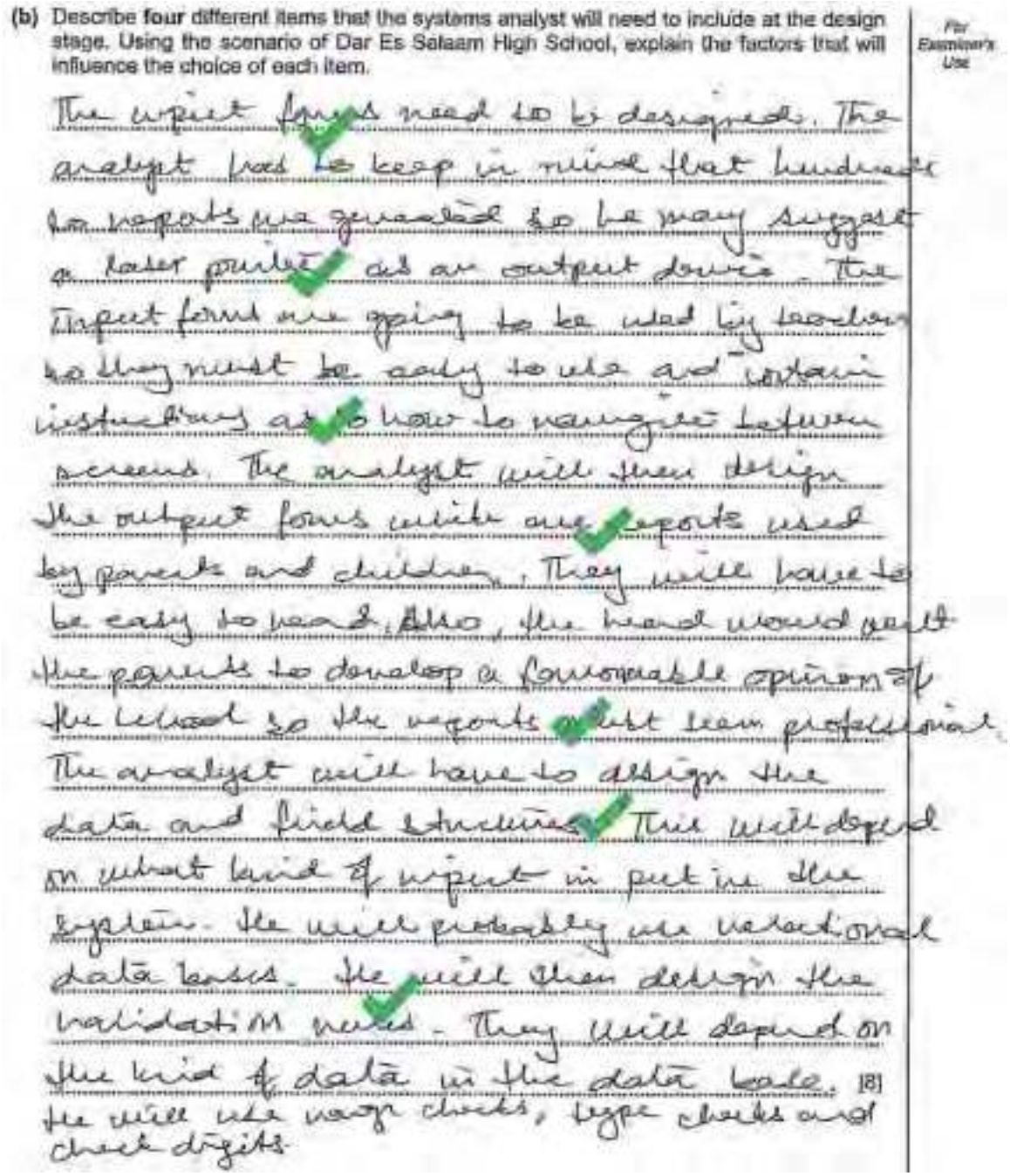
## Example candidate response – grade A



(b) Describe **four** different items that the systems analyst will need to include at the design stage. Using the scenario of Dar Es Salaam High School, explain the factors that will influence the choice of each item.

For Examiner's Use

The input forms need to be designed. The analyst has to keep in mind that hundreds of reports are generated so he may suggest a laser printer as an output device. The input forms are going to be used by teachers so they must be easy to use and contain instructions as to how to navigate between screens. The analyst will then design the output forms which are reports used by parents and children. They will have to be easy to read. Also, the layout would need the parents to develop a favourable opinion of the school so the reports must look professional. The analyst will have to design the data and field structures. This will depend on what kind of input in put in the system. He will probably use relational data bases. He will then design the validation rules. They will depend on the kind of data in the data base. [8]
He will use range checks, type checks and check digits

## Examiner comment – grade A

This candidate was awarded six marks. The answers provided did relate the factors to the scenario.

The marks awarded were for:

The correct identification of the need for input forms to be designed. The answer gained a supplementary mark for applying their use to teachers therefore a need for ease of use and instructions for navigating between them would be needed.

This was equivalent to the mark scheme points:

| | |
|---|---|
| Designing data collection forms/ screen layouts | An example of how:<br><br>the user requirements influences the format |



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The candidate then went on to describe the need for designing output forms or reports. There was also 'the head would want the parents to develop a favourable opinion of the school so the reports must seem professional'. This was equivalent to:

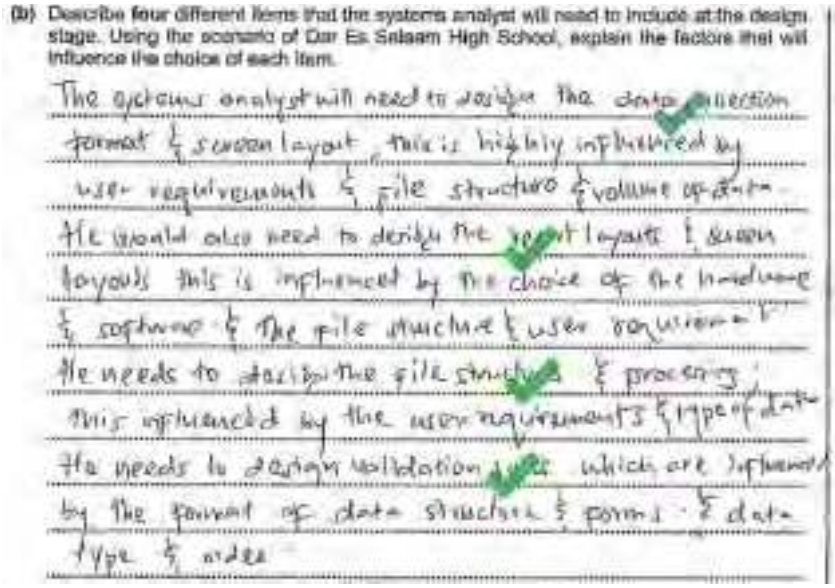
| | |
|---|---|
| Designing report layouts/screen displays | the content and presentation of report layouts/screen displays depend on the requirements of the users |

The candidate continued with the need for design of field structures (this was given benefit of the doubt as being the same as file structures). This was awarded a mark but, unfortunately, the factors that would affect the choice were not explained in terms of the scenario.

The candidate also described the need for the design of validation rules but failed to explain the factors which would affect the choice (a good example would have been the need for range checks on student scores etc.).

The candidate did explain the factors which would affect the choice of output device (in this case a laser printer) but had not identified the choice of hardware and software being an item needed at the design stage. As the candidate was given credit for describing four different items and explained the factors for two of them a total of six marks was awarded.

## Example candidate response – grade C


(b) Describe four different items that the systems analyst will need to include at the design stage. Using the scenario of Dar Es Salaam High School, explain the factors that will influence the choice of each item.

The systems analyst will need to design the data collection format & screen layout, this is highly influenced by user requirements & file structure & volume of data.

He would also need to design the report layouts & screen layouts this is influenced by the choice of the hardware & software & the file structure & user requirements.

He needs to design the file structure & processing, this influenced by the user requirements & type of data.

He needs to design validation rules which are influenced by the format of data structure & form & data type & order

## Examiner comment – grade C

The candidate described four items but did not explain any of the factors with reference to the scenario relying instead on generalised answers which were not specific to the scenario. The four items were:

- Designing data collection forms.
- Designing report layouts.
- Designing the required file structures.
- Designing validation routines.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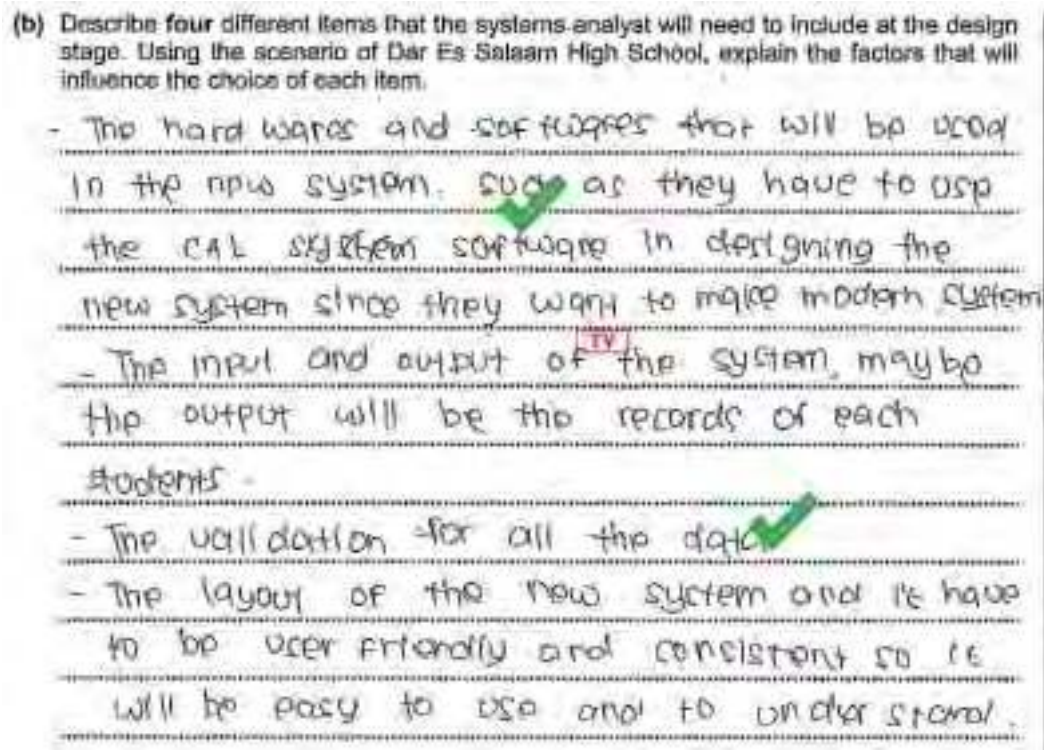
## Example candidate response – grade E



(b) Describe four different items that the systems analyst will need to include at the design stage. Using the scenario of Dar Es Salaam High School, explain the factors that will influence the choice of each item.

- The hard wares and softwares that will be used in the new system. Such as they have to use the CAL system software in designing the new system since they want to make modern system
- The input and output of the system, may be the output will be the records of each students
- The validation for all the data
- The layout of the new system and it have to be user friendly and consistent so it will be easy to use and to understand.

## Examiner comment – grade E

The candidate was given the benefit of the doubt regarding specifying the required hardware and software and gained a further mark for the need to design validation rules. The statements about CAL, input and output and the layout of the new system were too vague to gain any marks.

# Question 7 (a)

Explain the purpose of technical documentation.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **7 (a)** | **Two** from:<br>Produced specifically for systems analysts/programmers.<br>Helps when the system needs further development/upgrading/ improvements.<br>Helpful should any errors occur in the system and system needs amending to get rid of these errors. | [2] |

## General comment

Grade A candidates would be expected to gain both marks for this question, whereas grade C and E candidates would be expected to gain one mark.



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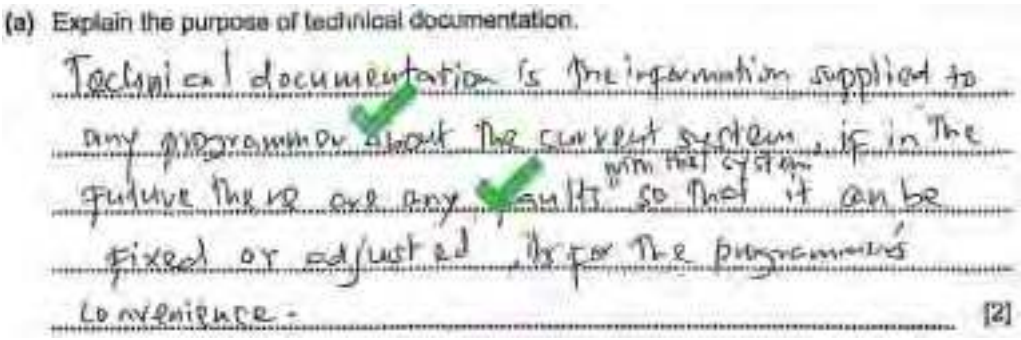
## Example candidate response – grade A


(a) Explain the purpose of technical documentation.

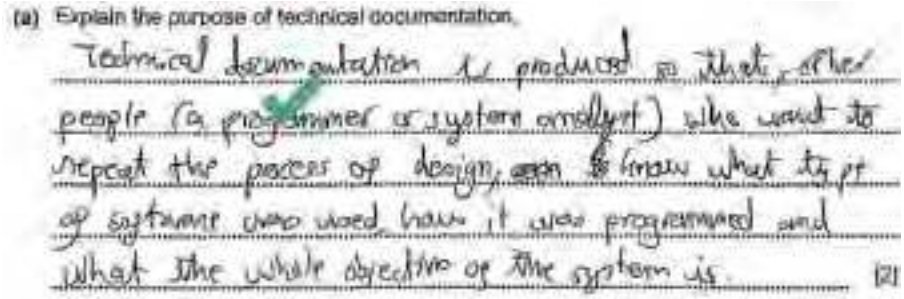
Technical documentation is the information supplied to any programmer about the current system, if in the future there are any faults with the system so that it can be fixed or adjusted for the programmers convenience. [2]

## Examiner comment – grade A

The candidate made two good points about technical documentation:

- Being provided for programmers.
- Needed in order for errors that occur to be corrected.

## Example candidate response – grade C

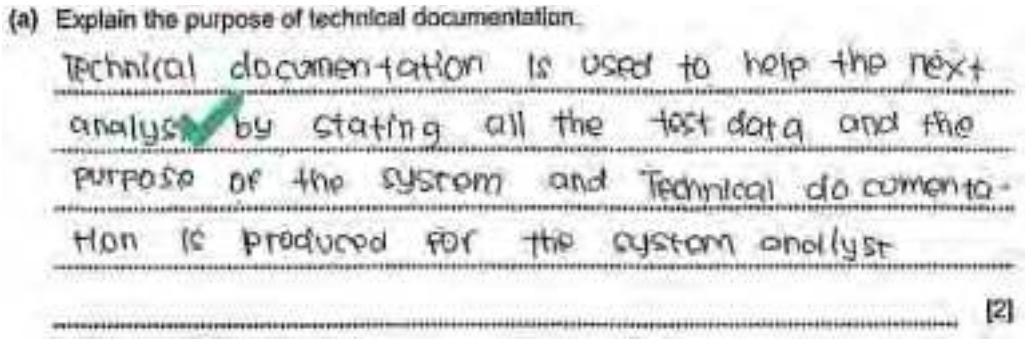

(a) Explain the purpose of technical documentation.

Technical documentation is produced so that other people (a programmer or system analyst) who want to repeat the process of design, can know what type of software was used, how it was programmed and what the whole objective of the system is. [2]

## Examiner comment – grade C

The candidate just gave an answer writing what technical documentation is without stating the purpose. A mark could only be awarded for the candidate stating who it was for.

## Example candidate response – grade E


(a) Explain the purpose of technical documentation.

Technical documentation is used to help the next analyst by stating all the test data and the purpose of the system and Technical documentation is produced for the system analyst [2]

## Examiner comment – grade E

This candidate also could only be awarded a mark for writing who the technical documentation is for, there being no explanation of the purpose of it.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# Question 7 (b)

Describe the **two** types of technical documentation including details of the contents of each one.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **7 (b)** | **Eight** from:<br>Systems documentation....<br>....provides a detailed overview of the whole system.<br>Test data/test plans so that systems analyst can see the results of these/test results.<br>Can use this data again to check if errors have been successfully removed.<br>The results of the systems analysis/DFD diagrams.<br>What is expected of the system/purpose of the system.<br>Overall design decisions such as the choice of hardware and software/file, input and output structures.<br>Systems flowcharts.<br><br>Program documentation....<br>....produced for program code that has been written.<br>Description of the software/purpose of the software.<br>Reasons for choosing those pieces of existing software that were used…<br>….. instead of the programmer having to write code.<br>Input and output data formats.<br>Program flowcharts/algorithms.<br>Program listing – this will be a complete copy of the code used…<br>…and annotation explaining what each module of code does.<br>Notes that will help any future programmer to make modifications to the system. | [8] |

## General comment

Grade A candidates would be expected to gain at least seven marks for this question. Grade C candidates would be expected to gain at least five marks and grade E candidates would be expected to gain at least two marks, if only just being able to name the two types.



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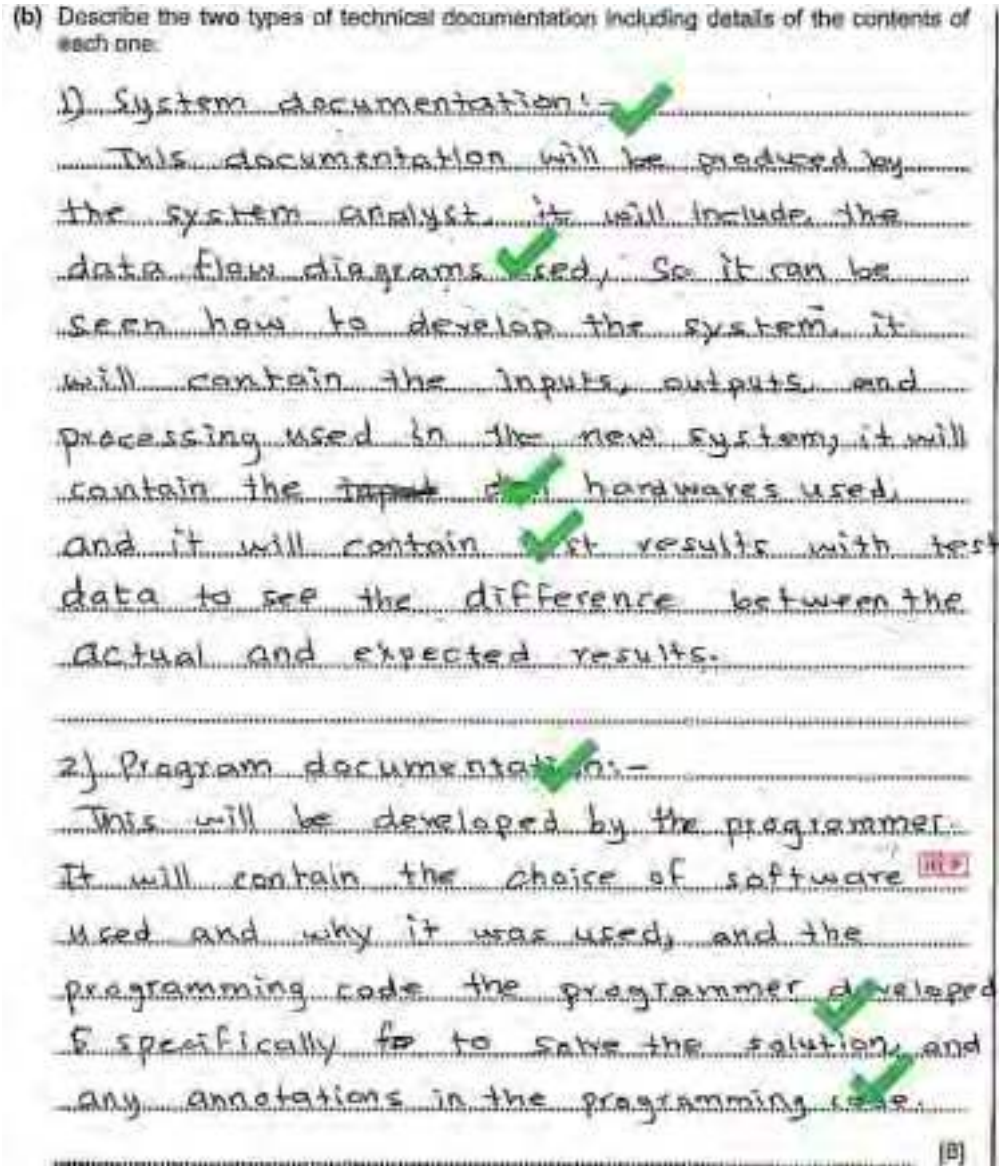
## Example candidate response – grade A



(b) Describe the two types of technical documentation including details of the contents of each one.

1) System documentation:-
This documentation will be produced by the system analyst. it will include the data flow diagrams used, so it can be seen how to develop the system. it will contain the inputs, outputs, and processing used in the new system, it will contain the ~~input~~ hardwares used, and it will contain test results with test data to see the difference between the actual and expected results.

2) Program documentation:-
This will be developed by the programmer. It will contain the choice of software used and why it was used, and the programming code the programmer developed & specifically to to solve the solution, and any annotations in the programming code.

[8]

## Examiner comment – grade A

The following points on the mark scheme show how the candidate was given credit for including details of technical documentation as follows:

- Correctly naming systems documentation.
- The results of the systems analysis/DFD diagrams.
- Overall design decisions such as the choice of hardware and software.
- Test data/test plans so that systems analyst can see the results of these/test results.
- Correctly naming program documentation.
- Program code that has been written.
- Annotation explaining what each module of code does.

As is often the case with longer essay type questions, the examiner always seeks to give the candidate the benefit of the doubt. Although the candidate did not specifically include 'choice of hardware and software', the candidate did mention hardware in the systems documentation part of the answer and choice of software in the program documentation. The examiner combined the two parts of the answer and awarded the mark. However, no benefit of the doubt could be applied to 'inputs, outputs and processing' as this is too general a phrase. The mark scheme requires answers such as input and output ***structures*** and this was part of the 'overall design decisions' mark point which had already been awarded in any case. The candidate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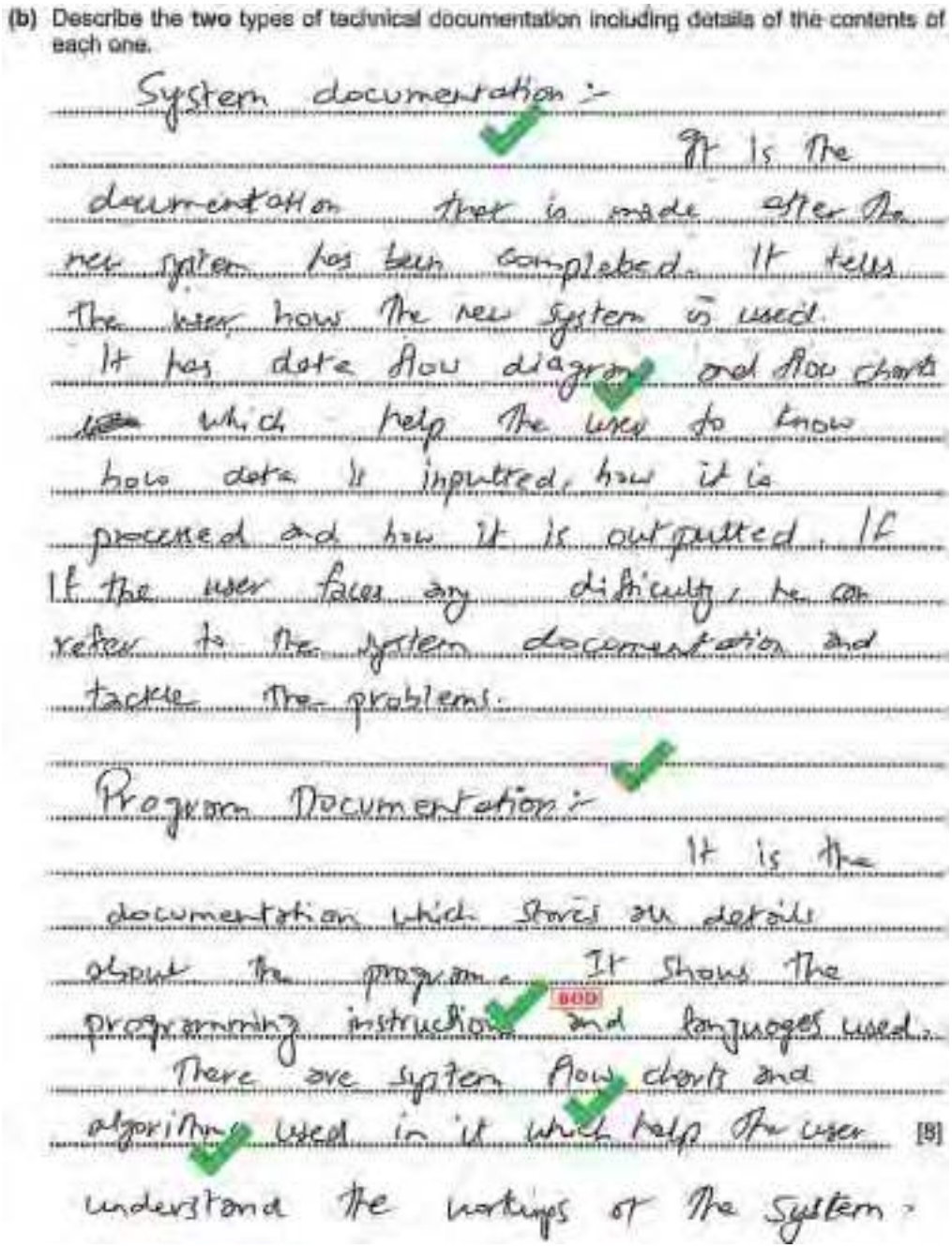
was also given the benefit of the doubt over the last mark point despite not going into the level of detail specified in the mark scheme.

## Example candidate response – grade C



(b) Describe the two types of technical documentation including details of the contents of each one.

System documentation :-

It is the documentation that is made after the new system has been completed. It tells the user how the new system is used. It has data flow diagrams and flow charts which help the user to know how data is inputted, how it is processed and how it is outputted. If the user faces any difficulty, he can refer to the system documentation and tackle the problems.

Program Documentation :-

It is the documentation which stores all details about the program. It shows the programming instructions and languages used. There are system flow charts and algorithms used in it which help the user understand the workings of the system. [5]

## Examiner comment – grade C

The candidate correctly identified the two types of documentation and was also given credit for including specific details of the contents as follows:

- Systems documentation.
- Overall design decisions such as the choice of file structures.
- The results of the systems analysis.
- What is expected of the system/purpose of the system.
- Program documentation.

The examiner again gave the benefit of the doubt to the candidate by combining the two parts of the answer – 'Overall design decisions' and where the candidate later wrote 'file structure' – to award one mark.



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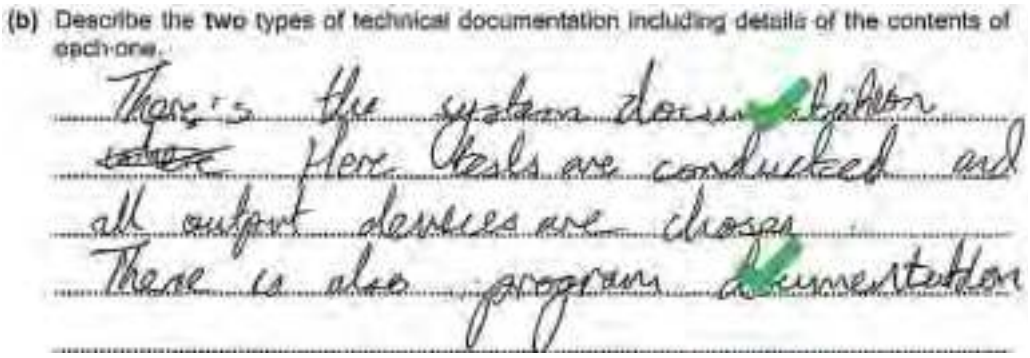
## Example candidate response – grade E



(b) Describe the two types of technical documentation including details of the contents of each one.

There's the system documentation ~~where~~ Here tests are conducted and all output devices are chosen. There is also program documentation

## Examiner comment – grade E

The candidate correctly identified the two types of technical documentation but was unable to go into any detail about them. The mention of 'test' and 'all output devices are chosen' was too vague.

# Question 7 (c)

After the system has been developed it will be evaluated. Describe how test results are recorded and explain how they affect this evaluation.

## Mark scheme

| Question Number | Question (including any source details) | Part Mark |
|---|---|---|
| **7 (c)** | **Three** from:<br>(A table) showing the type of test, test data, expected results, actual results and a comment on the results. (One mark for three column headings, two marks for 5 column headings.)<br>Test results will help the systems analyst to make judgements.<br>Comparison will be made of the actual results with the expected results.<br>If the results are not as expected system will need to refined.<br>Comments in the comparison table contribute to the evaluation. | [3] |

## General comment

Grade A and C candidates would be expected to gain at least two marks and grade E candidates would be expected to gain at least one mark.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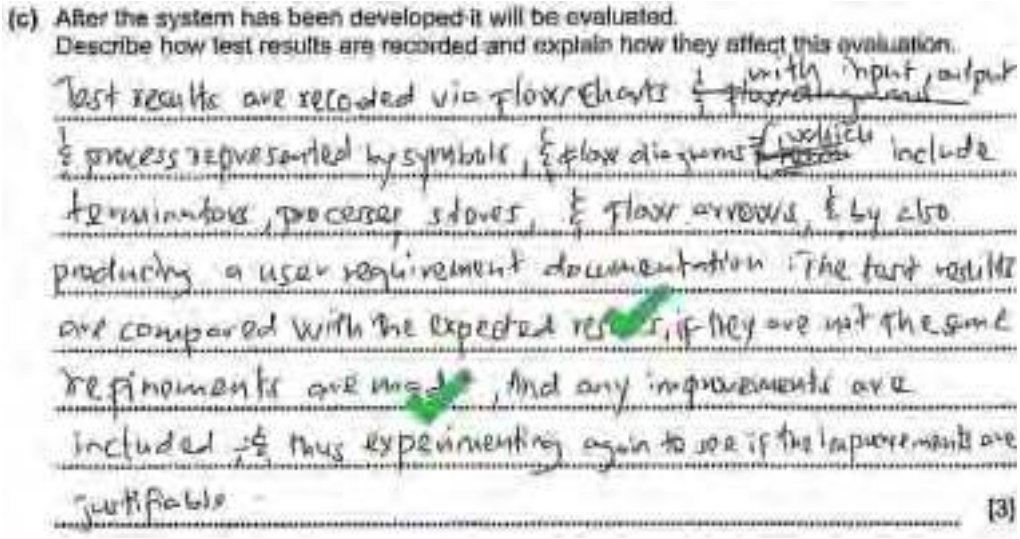
## Example candidate response – grade A



(c) After the system has been developed it will be evaluated.
Describe how test results are recorded and explain how they affect this evaluation.

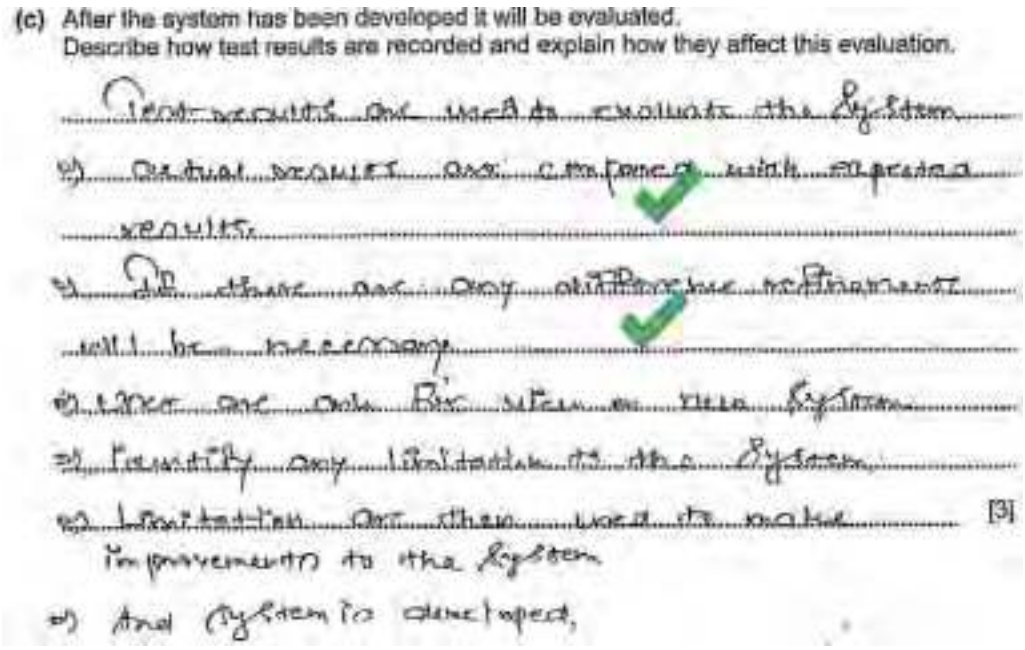
Test results are recorded via flow charts ~~& flow diagrams~~ with input, output & process represented by symbols, & flow diagrams ~~[illegible]~~ which include terminators, processes, stores, & flow arrows, & by also producing a user requirement documentation. The test results are compared with the expected results, if they are not the same refinements are made, and any improvements are included & thus experimenting again to see if the improvements are justifiable [3]

## Examiner comment – grade A

The candidate initially misunderstood the question and wrote about how the results of the analysis of an existing system are recorded instead of how the results of testing a new system would be recorded. Fortunately the response continued and included two good points regarding the use of the results of testing:

- Actual results are compared with the expected results.
- If the results are not as expected the system will need to be refined.

## Example candidate response – grade C



(c) After the system has been developed it will be evaluated.
Describe how test results are recorded and explain how they affect this evaluation.

Test results are used to evaluate the system
⇒ Actual results are compared with expected results.
⇒ If there are any difference refinements will be necessary.
⇒ User are ask for view on new system
⇒ Identify any limitation to the system
⇒ Limitation are then used to make improvements to the system [3]
⇒ And system is developed.

## Examiner comment – grade C

This candidate gained marks for:

- Actual results are compared with the expected results.
- If the results are not as expected the system will need to be refined.

The last few points in the candidate's answer related to how testing might be carried out and steps in the evaluation process. Neither of these were required by the question.



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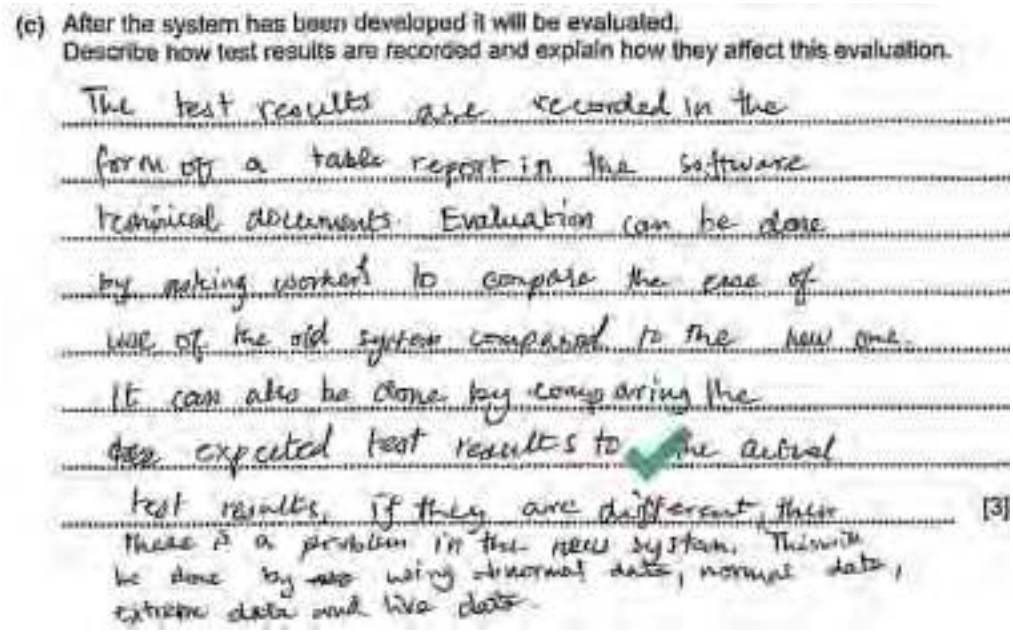
## Example candidate response – grade E



(c) After the system has been developed it will be evaluated.
Describe how test results are recorded and explain how they affect this evaluation.

The test results are recorded in the form of a table report in the software technical documents. Evaluation can be done by making workers to compare the ease of use of the old system compared to the new one. It can also be done by comparing the ~~the~~ expected test results to the actual test results, if they are different, then there is a problem in the new system. This will be done by the using abnormal data, normal data, extreme data and live data. [3]

## Examiner comment – grade E

The candidate gained no marks for the initial statement that test results are recorded in the form of a table. Having stated this, the candidate should have gone on to describe the contents of this table to gain marks.

Then the answer described how the testing might take place rather than how the results would be recorded.

The candidate gained a mark for the comparison of actual results with expected results. There was no mention of what action would be taken if a problem was identified. Just stating that there might be a problem is not enough. The rest of the answer concentrated on types of test data which, again, was not required by the question.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# Paper 2 – Practical Test

## Presentation

## Questions 1–7

*You are going to help trainees in a company understand some of the ICT features they might be required to use and show them how to use them.*

1 You are required to provide evidence of your work, including screen shots at various stages. Create a document named:

CentreNumber_CandidateNumber_Evidence.rtf

e.g. ZZ987_82_Evidence.rtf

Place your name, Centre number and candidate number in the header of your evidence document.

2 Create a presentation using the file **NXNOTES.RTF** to help you. [1]

3 On the slide master:

The slide master must have a white background and your Centre number, candidate number and name in a 12 point black serif font placed in the top right corner.

Ensure on all slides that no objects overlap. [3]

4 Some slides contain a title and questions.

Under each red bullet point briefly answer the question in your own words (related to the slide title and the preceding slide/s), using a bullet point in a black sans-serif font. [37]

5 Print all the slides of your presentation.

6 Insert hyperlinks on the first slide to make all of the text for each bullet point a link to the relevant slide.

Include in your evidence document screenshots that show how you created these links. [8]

7 On the first slide add a fifth bullet point with the text **Hothouse website** that links to the URL http://www.hothouse-design.co.uk

Include in your evidence document a screenshot that shows how you created this link.

Save your presentation. [3]



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## Mark scheme

### Slide 3

Candidate name & numbers

*Corporate house style*

- What is a corporate house style?
- Consistent colour scheme/ logo/trade mark / symbol / branding / set of rules / specifications [1]
- Why is it used?
- Way of recognising the company / branding / ensure consistency of company documents [1]
- How is it created?
- Styles applied to all documents /website/interface with public/ style guides/template documents [1]
- Where is it seen?
- letter heads/ business cards /advertising/ websites/company vehicles/intranet/predefined in software [1]

[4]

### Slide 4

Candidate name & numbers

*Verification*

- What is the feature?
- Checking that data has been entered accurately [1]
- Why is it used?
- Reduction in number of errors [1]
- How is it performed?
- double entry / visual compare of entry and original doc [1]
- What data might be verified on a web form?
- Password / email address [1]

[4]


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**Slide 5**

Candidate name & number

*Evaluate internet sources*

- How do you recognise a secure website?
- Padlock / https [1]
- Which part of a URL would show a site belongs to university?
- .ac .edu [1]
- What sort of organisation has a URL that ends .gov.au
- government [1]
- Why may information in a wiki be untrue?
- Not validated / anyone can enter data [1]

[4]

**Slide 6**

Candidate name & number

*Manipulating images*

- What is the feature?
- Changing an image to match a specified purpose [1]
- Why is it used?
- To give impact to audience / To fit available space / reduce file size for transfer / enhance or touch up image [1]
- What image format would be most suitable for a webpage?
- .jpg / .gif / .png [1]
- What problems could be caused by manipulating an image?
- Ethical / moral / loss of quality / distortion / pixelation /skewing / increased file size / incompatible formats / loss of layers / bitmap versus vector [1]

[4]



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**Slide 8**

Candidate name & number

*Special characters*

- What is the feature?
- Symbol /mathematical / accents / language characters [1]
- Why are they used?
- Tick boxes / formulae / accented characters / writing in foreign language [1]
- How would you add a special character to a document?
- Description of method of selection (eg. Insert then symbol) [1]
- Where would you include a special character?
- Data capture form / mathematical paper / Japanese text [1]

[4]

**Slide 9**

Candidate name & number

*Superscript and subscript*

- What is superscript?
- Superscript moves character above baseline [1]
- Give an example of its use
- Superscript for indices / mathematical documents [1]
- What is subscript?
- Subscript below baseline [1]
- Give an example of its use
- Subscript for chemical formulae / scientific documents [1]

[4]


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**Slide 10**

Candidate name & numbers

*Auto text used in word processing*

- What is auto text?
- **Commonly used text / phrases / file name / path auto numbering** [1]
- Why is it used?
- **Save time repeatedly typing** [1]
- Give an example of its use?
- **Header / Footer / Salutation / etc** [1]
- Describe how you would insert auto text
- **Insert & AutoText / Tools & Templates & Add-ins** [1]

[4]

**Slide 12**

Candidate name & numbers

*Hyperlinks*

- What is a hyperlink?
- **Link to slide / document / website** [1]
- Why is it used?
- **Move to different media / location / different slide / move to slide out of sequence / menu** [1]
- How do you recognise a hyperlink?
- ***Underscore, different colour, changes when cursor moved over it*** [1]

[3]



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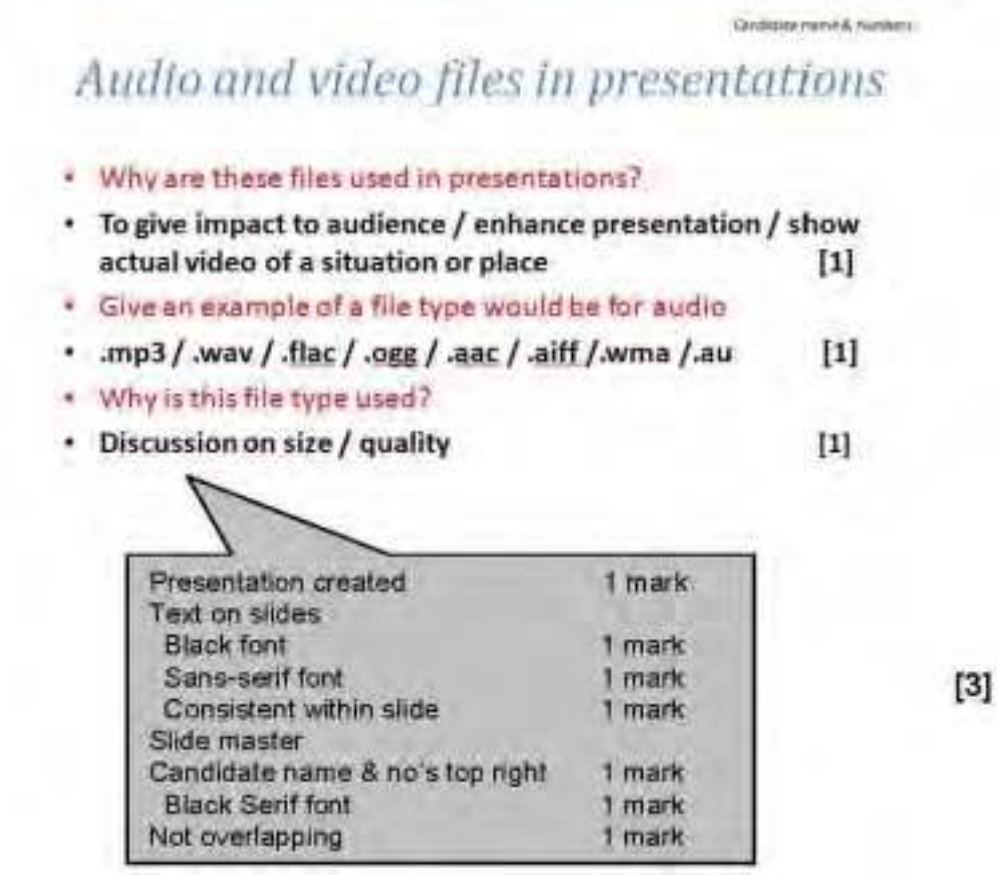
**Slide 13**




| | |
|---|---|
| Presentation created | 1 mark |
| Text on slides | |
| Black font | 1 mark |
| Sans-serif font | 1 mark |
| Consistent within slide | 1 mark |
| Slide master | |
| Candidate name & no's top right | 1 mark |
| Black Serif font | 1 mark |
| Not overlapping | 1 mark |

[3]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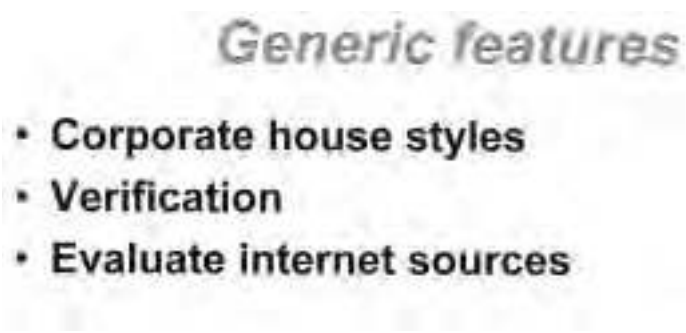
Example candidate response – grade A

Slide 1

Slide 2




Slide 3

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Slide 4

## Verification

- What is this feature?
- Manual checking of data.
- Why is it used?
- To reduce entry of errors.
- How is it performed?
- Entering data twice and looking at data again once entered.
- What data might be verified on a web form?
- Passwords or email addresses.

Slide 5

## Evaluate internet sources

- How do you recognise a secure website?
- A yellow padlock displayed by the browser.
- Which part of a URL would show a site belongs to a university?
- End prefix ".ac"
- What sort of organisation has a URL that ends .gov.au?
- Government of Australia.
- Why may information in a wiki be untrue?
- Because information is edited by any of its users.

Slide 6

## Manipulating images

- What is this feature?
- Editing and formatting images.
- Why is it used?
- To resize or cut certain parts.
- What image format would be most suitable for a webpage?
- .jpg
- What problems could be caused by manipulating an image?
- Distortion of the image.


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Slide 7

## Features used in document production

- Special characters
- Superscript and subscript
- Auto text

Slide 8

## Special characters

- What is this feature?
- Why are they used?
- How would you add a special character to a document?
- Where would you include a special character?

Slide 9

## Superscript and subscript

- What is superscript?
- Text which is above the baseline.
- Give an example of its use.
- $16m^2$
- What is subscript?
- Text which is below the baseline.
- Give an example of its use.
- $H_2O$



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Slide 10

## Auto text used in word processing

- What is auto text?
- Why is it used?
- Give an example of its use.
- Describe how you would insert auto text.

Slide 11

## Features used in presentation authoring

- Hyperlinks
- Audio and video files

Slide 12

## Hyperlinks

- What is a hyperlink?
- Is link that directs to another location or document.
- Why is it used?
- To make it easy to get to information quickly.
- How do you recognise a hyperlink?
- It is formatted in a different colour and is underlined.


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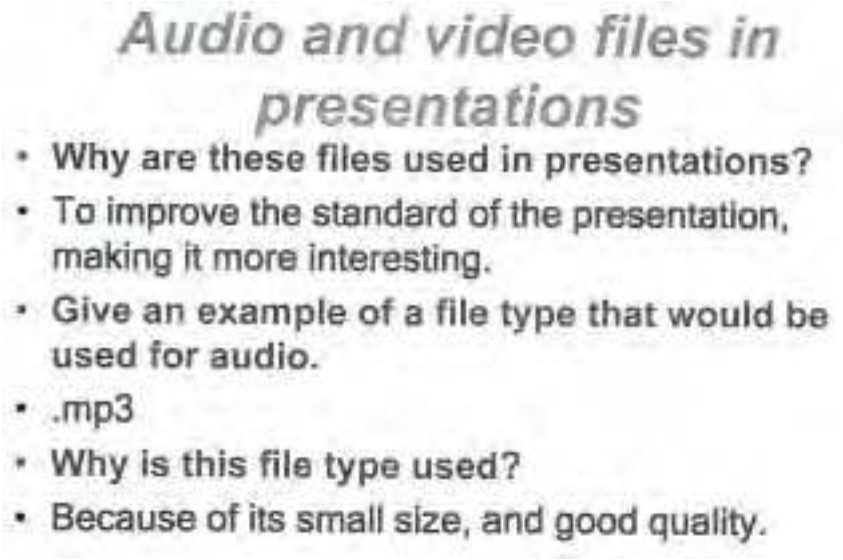
## Slide 13




## Examiner comment – grade A

### Presentation

The overall presentation attained six of the seven available marks for the correct importing of the presentation from the provided source file and for setting the slide master with a white background and the correct candidate details in the top right corner. These details were inserted in a sans-serif font rather than a serif font so a single mark was lost for this. The text on all slides was added using a black sans-serif font and was of consistent size within each slide.

Many of the slides contained questions requiring theoretical knowledge and understanding as well as the application of practical skills. On slide 3 all four answers were deemed worthy of marks, although the answer to 'How is a corporate house style created?' was deemed just worthy of a mark but lacking in depth of knowledge.

Slide 4 asked questions on verification. 'What is this feature?' required the candidate to include some reference of checking the accuracy of data entry. This candidate had omitted any reference to accuracy and included 'manual' which would only be partially correct. The other three answers on this slide are all excellent answers and gained three of the four available marks.

Both slides 5 and 6 contained valid and acceptable answers to all of the eight questions and gained full marks. On slide 8 the candidate did not provide any answers to the questions on special characters. There were excellent answers to all four questions on slide 9, with full marks being attained for these questions. On slide 10 the candidate did not provide answers to any of the questions relating to auto text. Slide 12 contained three sound answers relating to hyperlinks, each attaining a mark. This candidate also demonstrated sound knowledge relating to audio and video files and scored a full three marks for their answers in this area.



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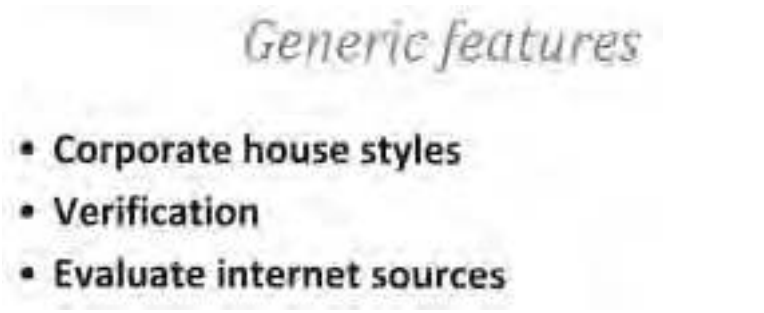
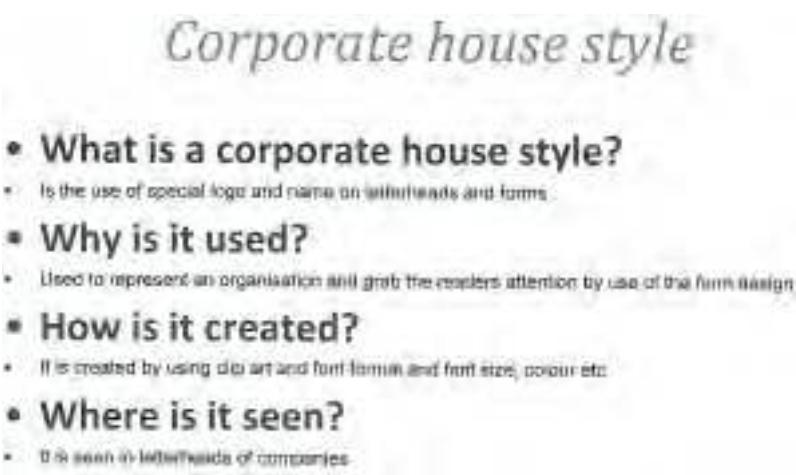
## Example candidate response – grade C

### Slide 1

### Slide 2




### Slide 3





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Slide 4

## Verification

- **What is this feature?**
  - Process of confirmation of correct data entry
- **Why is it used?**
  - To ensure correct entry of data
- **How is it performed?**
  - You can visually verify it or re-enter data
- **What data might be verified on a web form?**
  - The copyright detail at the bottom
- **Copyright details**

Slide 5

## Evaluate internet sources

- **How do you recognise a secure website?**
  - By looking at the ending of the web adress
- **Which part of a URL would show a site belongs to a university?**
  - Website adress ends with edu
- **What sort of organisation has a URL that ends .gov.au?**
  - Websites under control of a government representative
- **Why may information in a wiki be untrue?**
  - I may not be up to date

Slide 6

## Manipulating images

- **What is this feature?**
  - To enter pictures
- **Why is it used?**
  - To make work more attractive
- **What image format would be most suitable for a webpage?**
  - Right image format
- **What problems could be caused by manipulating an image?**
  - There can be a viewing problem



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Slide 7

## Features used in document production

- Special characters
- Superscript and subscript
- Auto text

Slide 8

## Special characters

- What is this feature?
  - To enter symbols
- Why are they used?
  - To make work more attractive
- How would you add a special character to a document?
  - Press the insert menu and then press symbol. allows you to select from a list of symbols
- Where would you include a special character?
  - At the end of a document

Slide 9

## Superscript and subscript

- What is superscript?
- Give an example of its use.
- What is subscript?
- Give an example of its use.

Slide 10

## Auto text used in word processing

- What is auto text?
- Why is it used?
- Give an example of its use.
- Describe how you would insert auto text.


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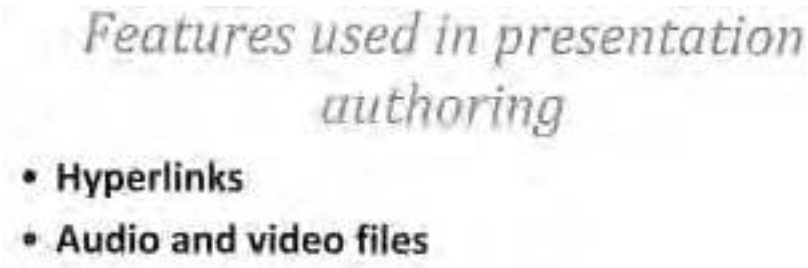
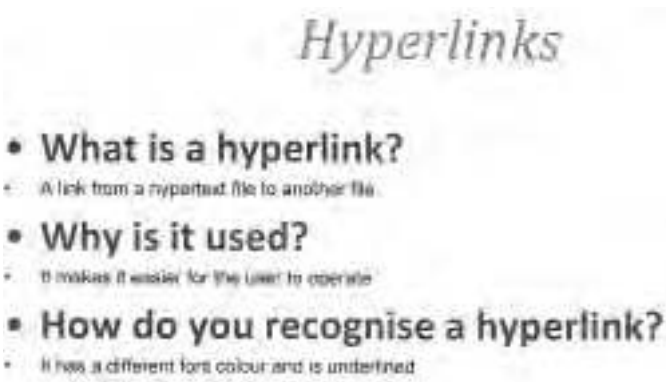
Slide 11




Slide 12




Slide 13

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## Examiner comment – grade C

### Presentation

The overall presentation attained all seven marks for the correct importing of the presentation from the provided source file and for setting the slide master with a white background and the correct candidate details in the top right corner. These details were inserted in a serif font and the text on all slides was added using a black sans-serif font and was of consistent size within each slide.

Many of the slides contained questions requiring theoretical knowledge and understanding as well as the application of practical skills. On slide 3 the first answer, although imprecise was deemed worthy of a mark. The second question was well answered, but the question related to how it was created lacked the detail to show this candidate had real understanding of the use of styles, templates or other consistency issues that would have gained a mark. The fourth question was answered with a single correct application.

Slide 4 asked questions on verification. 'What is this feature?' was answered incorrectly. The candidate's response that it was a 'Process of confirmation of correct data entry' was inaccurate. A correct response would include a mention of accuracy of data entry, verification does not ensure that the data is entered is correct. The second response from the candidate was a rewording of the first response and again the use of the word 'correct' in this context meant no mark could be awarded. The final answer did not describe data entered and verified on a web form.

The initial answer on slide 5 did not give the examiner sufficient detail to enable them to award a mark. The other three answers were all deemed acceptable and all awarded a single mark.

Slide 6 was not well answered. Although there was a degree of flexibility in the acceptable answers the candidate's response to the first answer was not deemed sufficient to constitute an AS Level response. The word 'manipulate' needed more than just entering an image, perhaps cropping, resizing or any other similar function would have been awarded a mark. The second question again reflected a lack of detail and was not worthy of a mark at this level. The third answer showed no knowledge of image file formats, or issues relating to distortion, pixilation etc for the final question.

The first response on slide 8 was not correct, special characters are symbols, not the action of entering symbols. For the second question, the use was not explicit in the answer given by this candidate. The process of inserting a special character into a document was accurately portrayed and gained a mark. The final candidate response on this slide was not worthy of a mark.

On slides 9 and 10 the candidate did not provide answers to any of the questions relating to superscript, subscript and autotext.

On slide 12 the candidate's first response stated that a hyperlink was from a hypertext file which is incorrect, the second response was too vague, with an extension to this answer the candidate may have attained this second mark. The final question was well answered and gained a single mark.

The first response on slide 13 was worthy of a mark, however on the second and third questions there was no evidence of the candidate's understanding of file types for these media files, or why particular file types are selected for use.


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Example candidate response – grade E

Slide 1

## *Hothouse Design*

- Generic features
- Manipulating images
- Features used in document production
- Features used in presentation authoring

Slide 2

## *Generic features*

- Corporate house styles
- Verification
- Evaluate internet sources

Slide 3

## Corporate house style

- What is a corporate house style?
- It's a house which could be used to attract anyone.
- Why is it used?
- To help attract business and work from home.
- How is it created?
- With imagination
- Where is it seen?
- In rich areas



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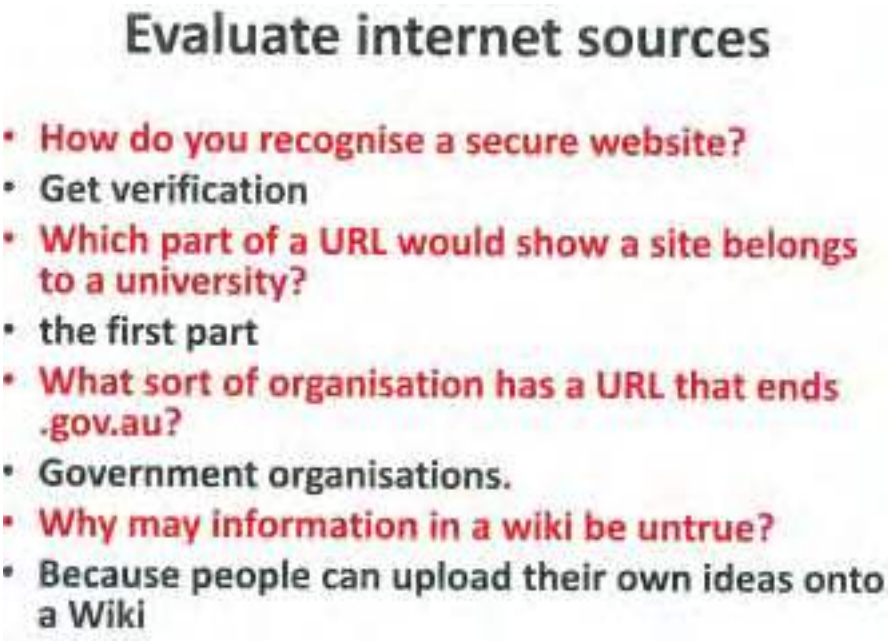
Slide 4

Slide 5





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Slide 6

## Manipulating images

- What is this feature?
- It allows you to edit images
- Why is it used?
- To modify Images to suit your needs
- What image format would be most suitable for a webpage?
- JPG
- What problems could be caused by manipulating an image?
- It could reduce the Quality of an Image

Slide 7

## *Features used in document production*

- Special characters
- Superscript and subscript
- Auto text

Slide 8

## *Special characters*

- What is this feature?
- Helpful characters
- Why are they used?
- In-case they are need for certain tasks
- How would you add a special character to a document?
- As a signature or logo
- Where would you include a special character?
- At the end of the document



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Slide 9

## Superscript and subscript

- What is superscript?
- A very long Document
- Give an example of its use.
- To give information
- What is subscript?
- A shorter Document than a Superscript
- Give an example of its use
- The bill of rights

Slide 10

## Auto text used in word processing

- What is auto text?
- Fills in the rest of a word you've just started typing
- Why is it used?
- To make typing faster and error free
- Give an example of its use.
- When saying: How are you? Are you have to do type How and the rest of the sentence will be filled
- Describe how you would insert auto text.
- You will have to turn on the feature

Slide 11

## Features used in presentation authoring

- Hyperlinks
- Audio and video files


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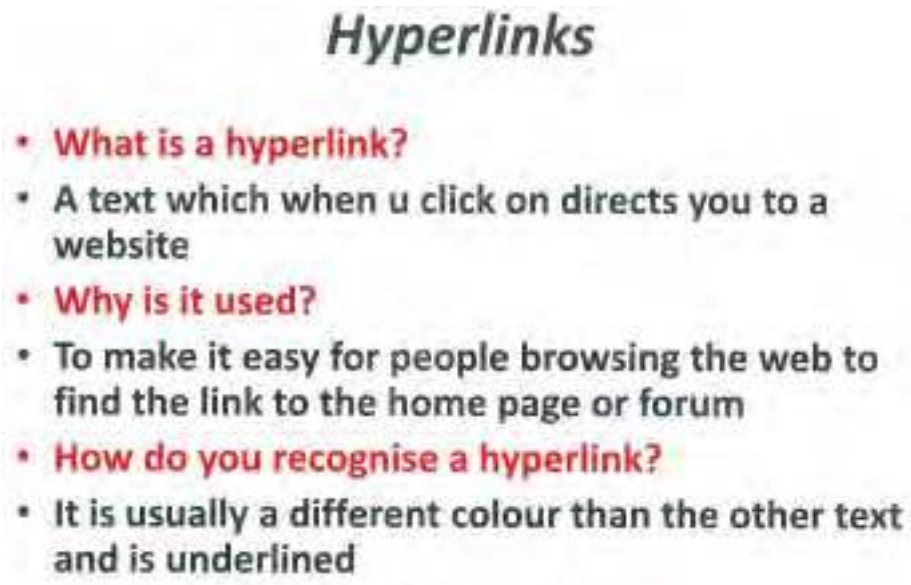
## Slide 12




## Slide 13

## Examiner comment – grade E

### Presentation

The overall presentation attained six of the seven marks for the correct importing of the presentation from the provided source file. The mark for setting the slide master with a white background and the correct candidate details in the top right corner was not awarded as these details were placed in the lower right area of the master slide. These details were inserted in a serif font and the text on all slides was added using a black sans-serif font and was of consistent size within each slide.

Many of the slides contained questions requiring theoretical knowledge and understanding as well as the application of practical skills. On slide 3 the first answer did not contain any valid mark points so no mark was awarded. The second answer, although showing some knowledge, suggested it was a method of advertising, and to work from home. Neither of these points was worthy of a mark, but it is worth noting that when candidates respond with multiple different answers to a question (as is the case with this answer), only the first response will be marked. If the second part had been a continuation or enhancement



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to the initial statement, perhaps offering clarity it would be taken into account by the examiner. The third and fourth answers on this slide were not worthy of any marks.

Slide 4 asked questions on verification. 'What is this feature?' was answered incorrectly. The candidate's response was that it was a safety feature. The second response from the candidate was related to data confidentiality so no mark could be awarded. The third response was related to security of information on a website, and although the candidate did relate their answer to data entry, there was insufficient in this answer to suggest that the candidate understood any of the verification processes. The final answer included three different answers, the data specified (name) would not have been critical to the functioning of a web form (like a password to access it) so no mark was awarded.

The initial answer on slide 5 was incorrect and gained no marks. The second response was both incorrect and also lacked sufficient detail (even if the last part had been given as the answer) as a response indicating .ac or .edu was required to gain this mark. The third question was answered correctly and gained this candidate a mark. The fourth response was also a sound answer, had the candidate continued to include the lack of moderation of wiki posts this would have been a superb response.

Slide 6 was reasonably well answered. Although there was a degree of flexibility in the acceptable answers the candidate's response to the first answer was not deemed sufficient to constitute an AS level response. Just 'editing' without specific or a designated purpose would be awarded a mark at IGCSE level but is too vague at AS Level. The second question was awarded a mark, although not a strong answer, it did convey a sense of audience and purpose in 'to suit your needs' so was given the benefit of the doubt by the examiner. The third response was fine and gained the mark. The fourth question was also adequately answered with quality reduction worthy of this final mark for the slide.

The first response on slide 8 was too vague as "Helpful characters" may have provided a starting point to an answer but was insufficient to show knowledge of the subject matter. The second answer was again too vague; if the candidate had followed this with a specific example they could have gained a mark. The final two candidate responses on this slide were not worthy of any marks.

On slide 9 the candidate did not provide answers that related to any of the questions about the topics of superscript and subscript. These responses showed a gap in the candidate's knowledge. The first response on slide 10 described automatic completion of text being entered rather than their being commonly used phrases etc. that could be automated, for example: an automated company name entered via a keyboard shortcut, an automated field for today's date, time or filename. The second mark on this slide was awarded for this response. The example given by the candidate to the third question was not a realistic use of autotext because the word 'How' could formulate the start of many different sentences. The fourth question required a more detailed and explicit answer to show the candidate had some practical knowledge of applying this feature to their work. "...turn on the feature" did not convey this knowledge to the examiner.

On slide 12 the candidate's first response stated that a hyperlink was 'a text which when u click on directs you to a website'. It is not specifically text and may be a hyperlink to another format (for example, a document) rather than to only a website. Please note that candidates should be advised that correct English should be used in examination answers and shorthand notation used in SMS messaging (or other similar practices) should not be used. The second answer was also weak, but was given the benefit of the doubt by the examiner as it did encompass the idea behind one application of a hyperlink. The third answer was a solid answer and attained the mark.

All three responses on slide 13 were worthy of marks. The initial answer, although weak did portray the need for impact to the audience, the second answer was fine and the third answer gave one attribute of this particular file type.


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# Spreadsheet, chart and evidence document

## Questions 8–32

*Hothouse Design has been asked to develop some large advertisements for the 2012 Olympic games. Use a spreadsheet to analyse the production dates for these advertisements.*

**8** Using a suitable software package, load the file **NXJOBS.CSV**

**9** Insert a new row 8 and in cell A8 add the text **Project 6** [2]

**10** Replace the word *Advertisement* with the word **Project** wherever it appears in the spreadsheet [1]

**11** In cell B3 enter the date 28th November 2010.

In cell B4 enter the date 16th October 2010.

In cell B5 enter the date 2nd November 2010.

In cell B6 enter the date 30th November 2010.

In cell B7 enter the date 1st December 2010.

In cell B8 enter the date 2nd December 2009. [6]

**12** Delete row 2 from the spreadsheet. [1]

**13** Embolden all cells in row 1 and all cells in column A [1]

**14** In cell C2 use a function to extract the day as a numeric value from cell B2 [1]

**15** In cell D2 use a function to extract the month as a numeric value from cell B2. [1]

**16** In cell E2 use a function to extract the year as a numeric value from cell B2 [1]

**17** In cell J2 calculate the end date for the project using the start date and the number of days it will take for planning, design, creation and installation. [1]

**18** Replicate the formulae used in steps 14 to 17 for all projects. [1]

**19** In cell J7 change the date to 23rd July 2010. [1]

**20** Format all the date cells in columns B and J into the format dd/mm/yy. [1]

**21** Insert a formula in cell K2 which uses the file **NXMONTH.CSV** to look up the season from the *Start date* and adds this to the date.

For example: 01/01/2010 will be displayed as **01 January 2010 (Winter)** [14]



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**22** In cell L4 use a formula to calculate the difference in months, between the start date and the end date.

Replicate this formula for all projects. [5]

**23** In cell A10 use a formula to count the number of projects that start in Winter. [4]

**24** Create a header which says **Planning time for projects** and a footer which contains your name, Centre number and candidate number. [2]

**25** Save and print your spreadsheet, adjusting the page layout if necessary so that the whole table fits on a single page. Make sure that the contents of all cells are fully visible. [2]

**26** Change the wording of the header to **Formulae and functions used** [1]

**27** Print the spreadsheet in landscape orientation, showing all formulae instead of values. Ensure that all formulae and labels are fully visible. Show row and column headings. [4]

**28** Produce a chart showing the analysis of days planned for each stage for projects 1 to 5. This chart should show a comparison of the overall project lengths and each stage within each project. Select the project numbers (eg. **Project 1**) for the category axis and the number of days from the start of the project for the value axis. Select the most appropriate type of graph or chart to display the data.

Ensure that your chart is fully labelled. Place your name, centre number and candidate number on the chart. Save and print this chart. [11]

**29** Compress the files saved in steps 7 and 25 into a single file.

Include in your evidence document a screenshot that shows how you compressed these files. [2]

**30** Include in your evidence document a screenshot showing the file names, file types, date and time modified and file sizes. [3]

**31** At the end of your evidence document, give two reasons why you would compress these files. [2]

**32** Save and print your evidence document.


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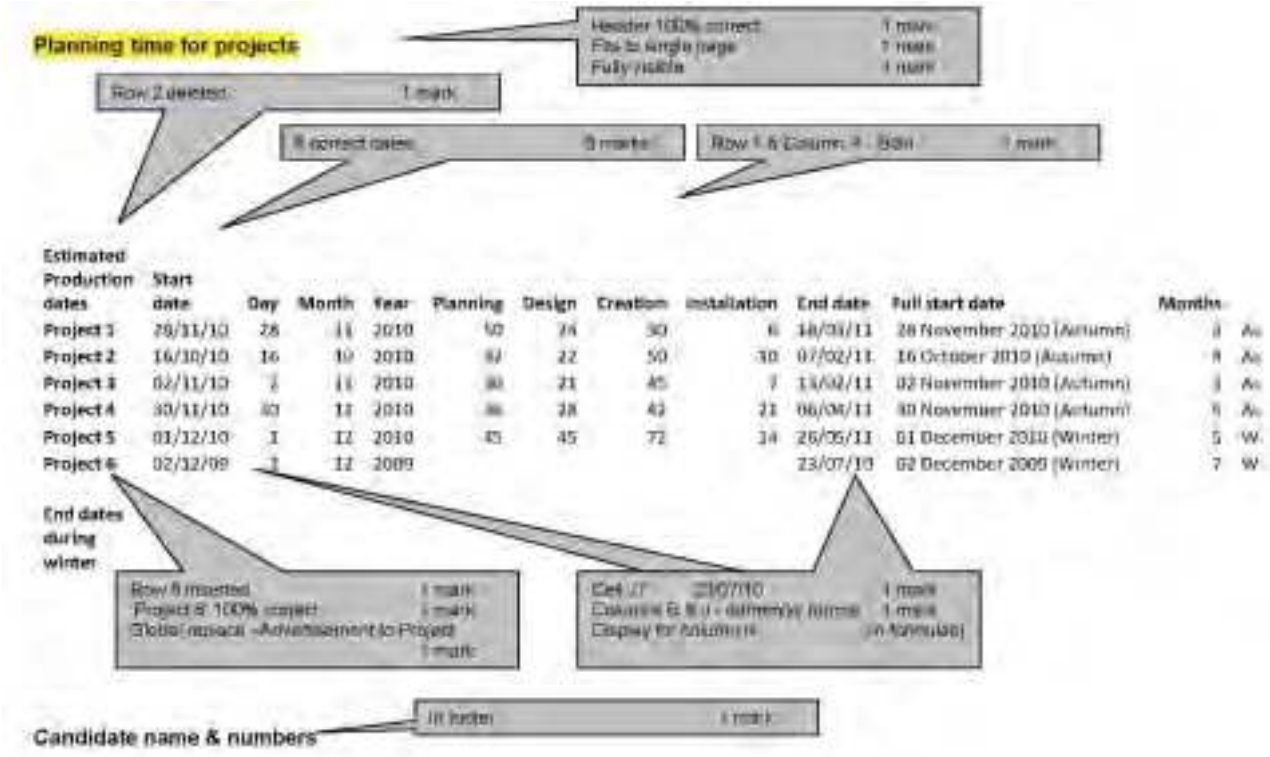
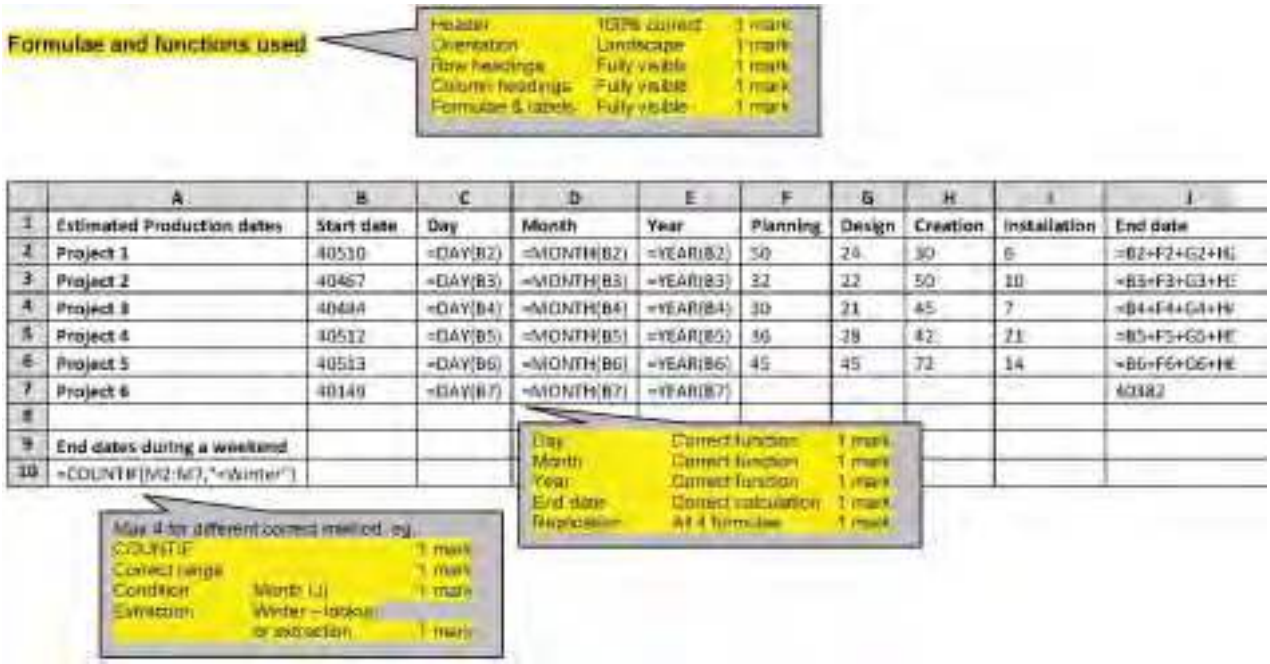
# Mark scheme




| | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Estimated Production dates | Start date | Day | Month | Year | Planning | Design | Creation | installation | End date |
| 2 | Project 1 | 40510 | =DAY(B2) | =MONTH(B2) | =YEAR(B2) | 50 | 24 | 30 | 6 | =B2+F2+G2+H2 |
| 3 | Project 2 | 40467 | =DAY(B3) | =MONTH(B3) | =YEAR(B3) | 32 | 22 | 50 | 10 | =B3+F3+G3+H3 |
| 4 | Project 3 | 40484 | =DAY(B4) | =MONTH(B4) | =YEAR(B4) | 30 | 21 | 45 | 7 | =B4+F4+G4+H4 |
| 5 | Project 4 | 40512 | =DAY(B5) | =MONTH(B5) | =YEAR(B5) | 56 | 28 | 42 | 21 | =B5+F5+G5+H5 |
| 6 | Project 5 | 40513 | =DAY(B6) | =MONTH(B6) | =YEAR(B6) | 45 | 45 | 72 | 14 | =B6+F6+G6+H6 |
| 7 | Project 6 | 40149 | =DAY(B7) | =MONTH(B7) | =YEAR(B7) | | | | | 40382 |
| 8 | | | | | | | | | | |
| 9 | End dates during a weekend | | | | | | | | | |
| 10 | =COUNTIF(M2:M7,"=Winter") | | | | | | | | | |



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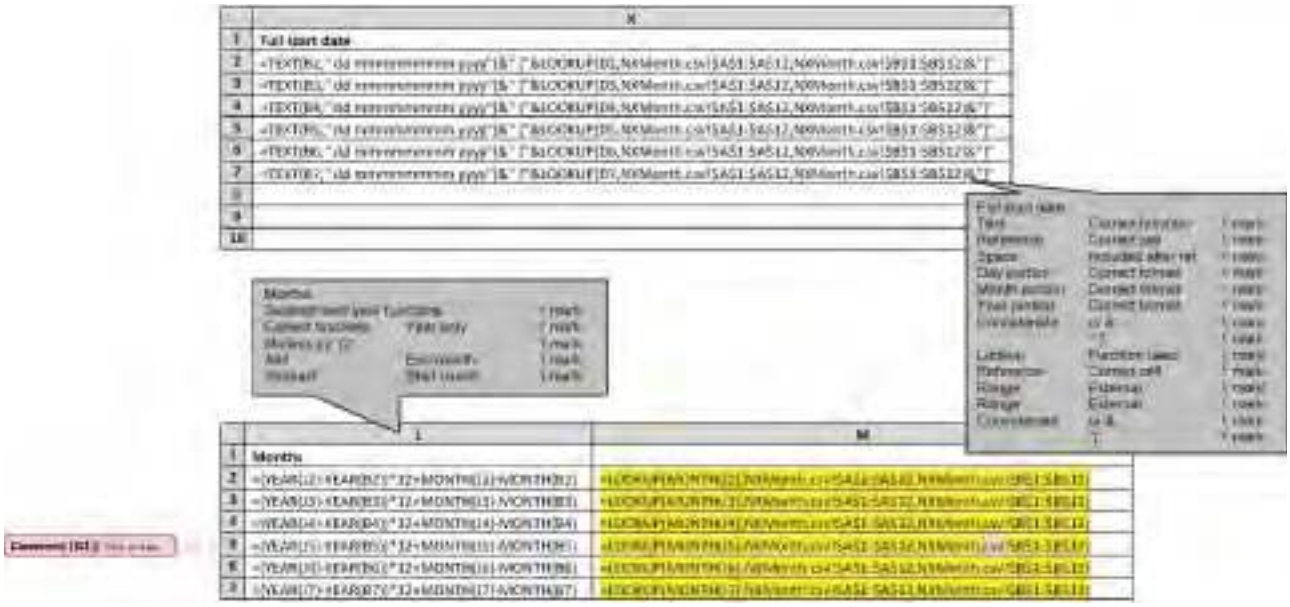

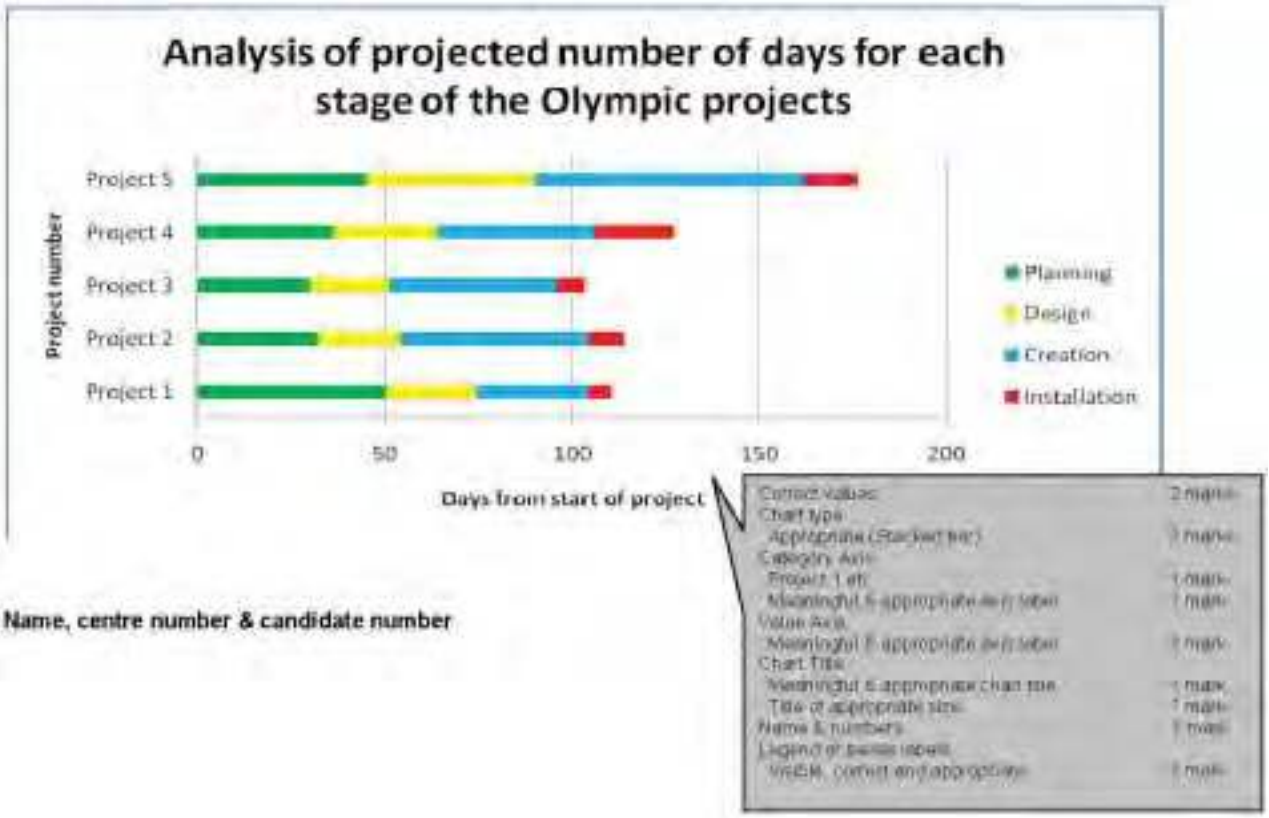


**Name, centre number & candidate number**


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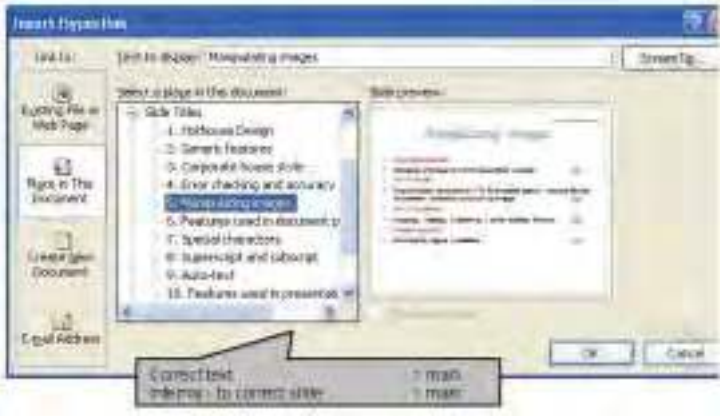
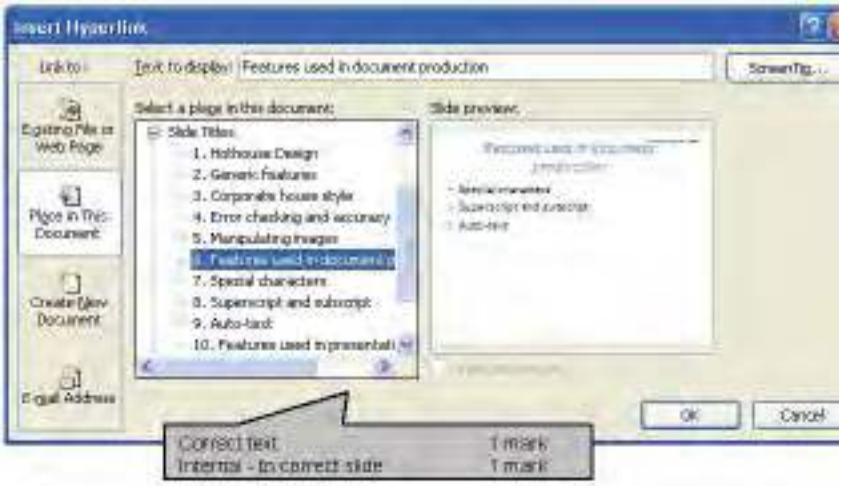
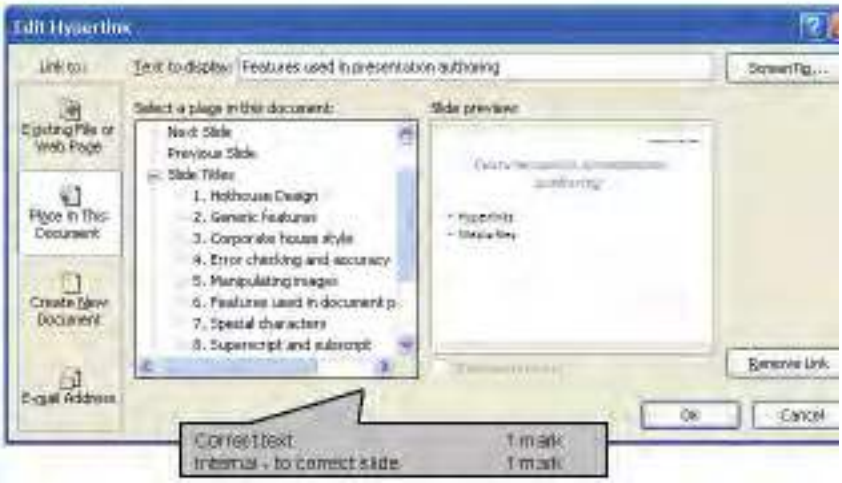
**Evidence document**





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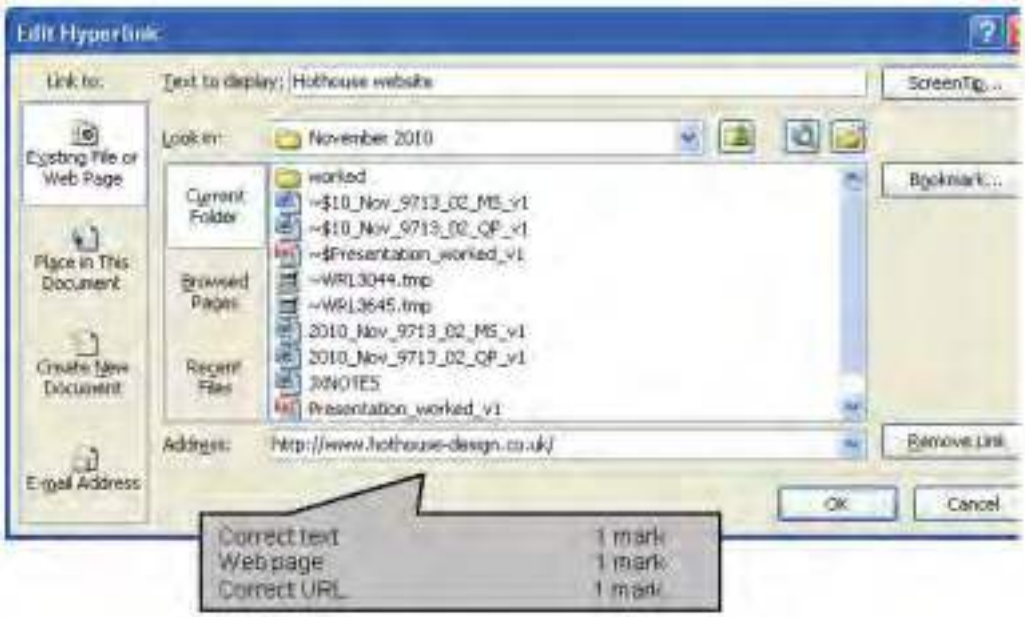

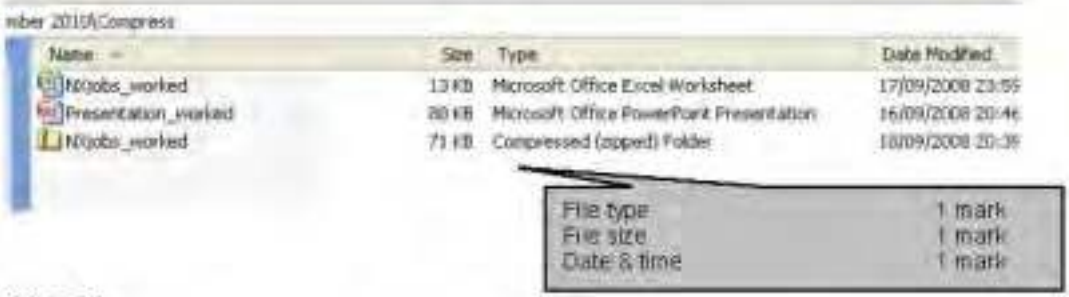


**Step 30**

**Reasons for compression:**

- Reduce transmission time for files
- For e-mail attachments / file transfer using network / internet
- Server space / reduce storage space for files

2 from Max



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# Example candidate response – grade A

Planning time for projects

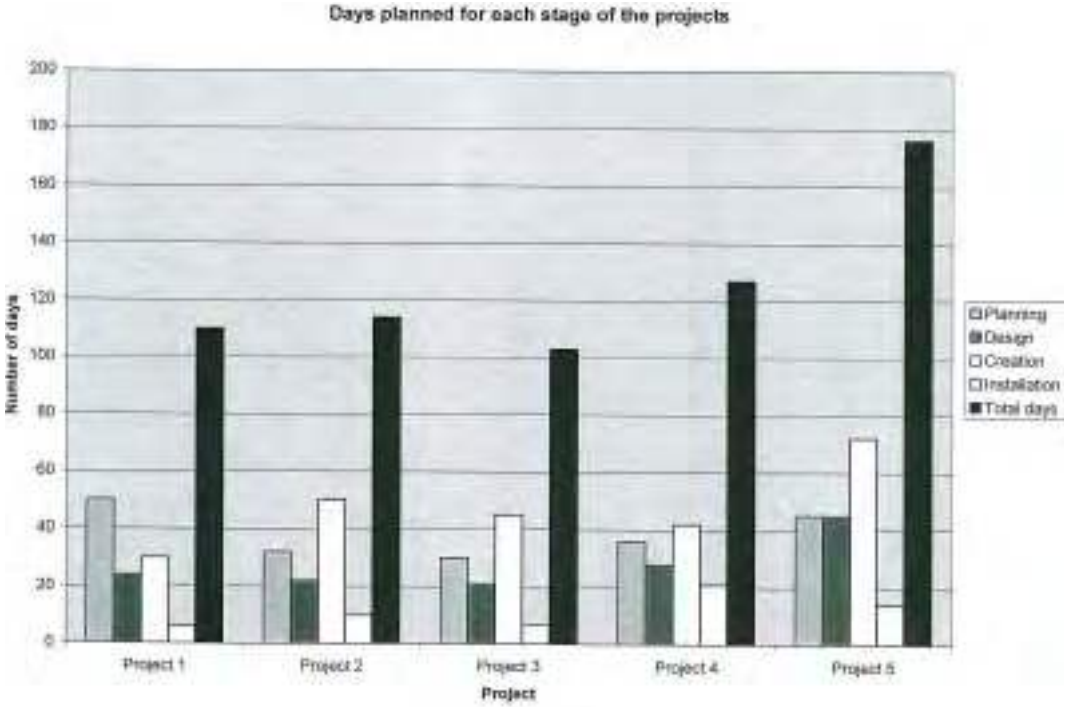
| Estimated Production dates: | Start date | Day | Month | Year | Planning | Design | Creation | Installation | End date | Full start date | Months |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Project 1 | 22/01/10 | 28 | 11 | 2010 | 50 | 34 | 30 | 8 | 16/03/11 | 16/03/11 (Spring) | 8 |
| Project 2 | 16/10/10 | 15 | 10 | 2010 | 30 | 22 | 50 | 10 | 07/02/11 | 07/02/11 (Winter) | 8 |
| Project 3 | 02/11/10 | 2 | 11 | 2010 | 30 | 21 | 45 | 7 | 13/02/11 | 13/02/11 (Winter) | 9 |
| Project 4 | 30/11/10 | 30 | 11 | 2010 | 36 | 28 | 42 | 21 | 06/04/11 | 06/04/11 (Spring) | 7 |
| Project 5 | 01/12/10 | 1 | 12 | 2010 | 45 | 45 | 72 | 14 | 16/05/11 | 28/05/11 (Spring) | 7 |
| Project 6 | 02/12/09 | 2 | 12 | 2009 | | | | | 23/08/10 | 23/08/10 (Summer) | 6 |
| | | | | | | | | | | | |
| End dates during a weekend | | | | | | | | | | | |
| 2 | | | | | | | | | | | |

Formulae and functions used

| Estimated Production dates: | Start date | Day | Month | Year | Planning | Design | Creation | Installation | End date |
|---|---|---|---|---|---|---|---|---|---|
| Project 1 | 40510 | =DAY(B2) | =MONTH(B2) | =YEAR(B2) | 50 | 34 | 30 | 8 | =(B2+(SUM(F2:I2))) |
| Project 2 | 40467 | =DAY(B3) | =MONTH(B3) | =YEAR(B3) | 30 | 22 | 50 | 10 | =(B3+(SUM(F3:I3))) |
| Project 3 | 40484 | =DAY(B4) | =MONTH(B4) | =YEAR(B4) | 30 | 21 | 45 | 7 | =(B4+(SUM(F4:I4))) |
| Project 4 | 40512 | =DAY(B5) | =MONTH(B5) | =YEAR(B5) | 36 | 28 | 42 | 21 | =(B5+(SUM(F5:I5))) |
| Project 5 | 40513 | =DAY(B6) | =MONTH(B6) | =YEAR(B6) | 45 | 45 | 72 | 14 | =(B6+(SUM(F6:I6))) |
| Project 6 | 40148 | =DAY(B7) | =MONTH(B7) | =YEAR(B7) | | | | | 40354) |
| | | | | | | | | | |
| End dates during a weekend | | | | | | | | | |
| =COUNTIF(K2:K7,"Winter") | | | | | | | | | |

Formulae and functions used

| Full start date | Months |
|---|---|
| =CONCATENATE(TEXT(J2,"dd/mm/yy"),"(",VLOOKUP(MONTH(J2),NXMONTH.csv!$A$1:$B$12,2,FALSE),")") | =(D2-MONTH(J2)) |
| =CONCATENATE(TEXT(J3,"dd/mm/yy"),"(",VLOOKUP(MONTH(J3),NXMONTH.csv!$A$1:$B$12,2,FALSE),")") | =(D3-MONTH(J3)) |
| =CONCATENATE(TEXT(J4,"dd/mm/yy"),"(",VLOOKUP(MONTH(J4),NXMONTH.csv!$A$1:$B$12,2,FALSE),")") | =(D4-MONTH(J4)) |
| =CONCATENATE(TEXT(J5,"dd/mm/yy"),"(",VLOOKUP(MONTH(J5),NXMONTH.csv!$A$1:$B$12,2,FALSE),")") | =(D5-MONTH(J5)) |
| =CONCATENATE(TEXT(J6,"dd/mm/yy"),"(",VLOOKUP(MONTH(J6),NXMONTH.csv!$A$1:$B$12,2,FALSE),")") | =(D6-MONTH(J6)) |
| =CONCATENATE(TEXT(J7,"dd/mm/yy"),"(",VLOOKUP(MONTH(J7),NXMONTH.csv!$A$1:$B$12,2,FALSE),")") | =(D7-MONTH(J7)) |
| | |
| | |
| | |



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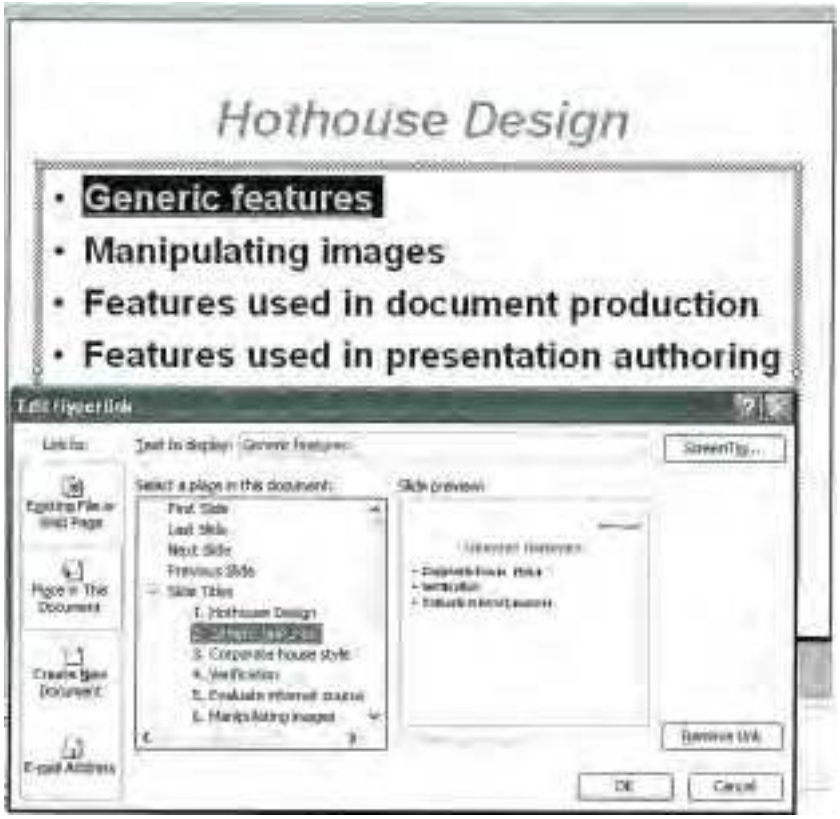
To stop viruses inserting macros code into the work because both Excel and PowerPoint can execute macros.

Compression would make the documents easier to email.





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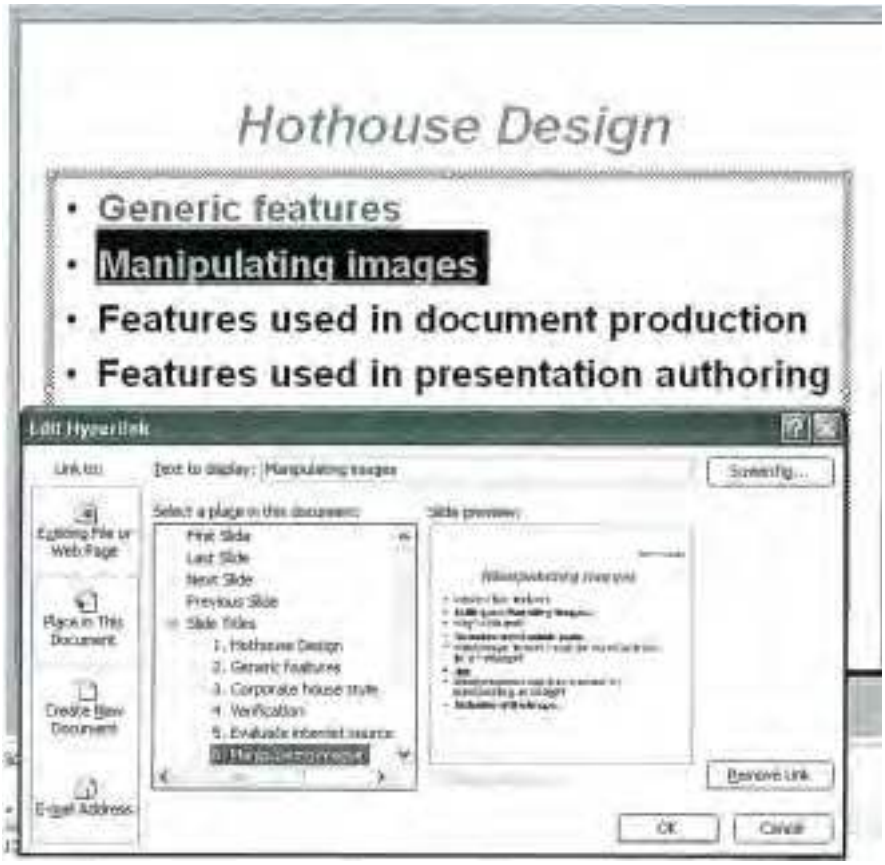


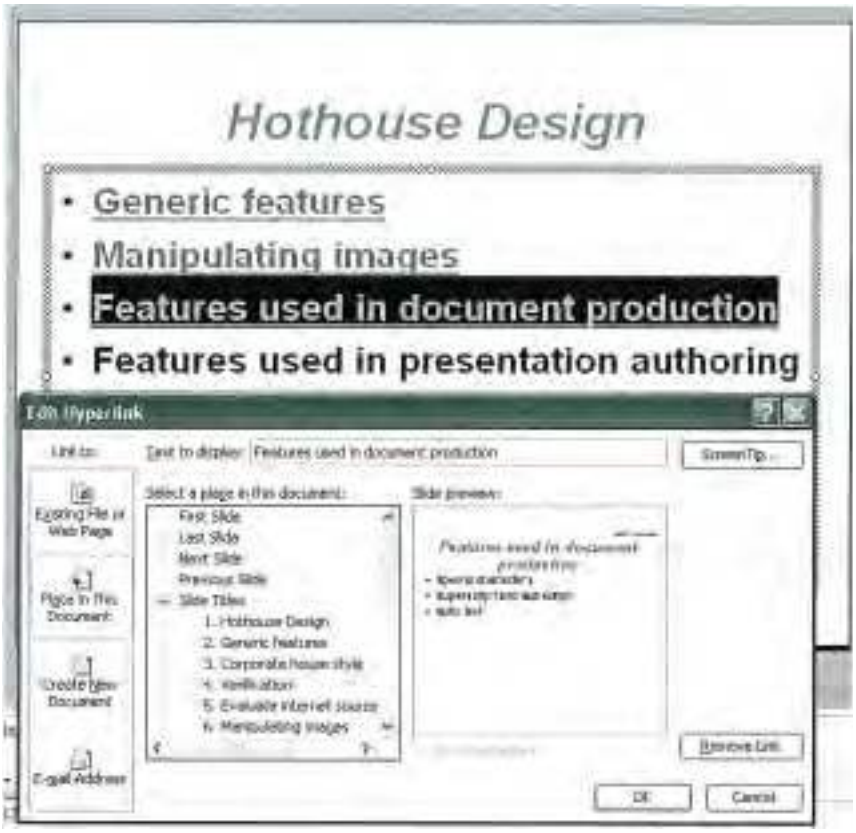




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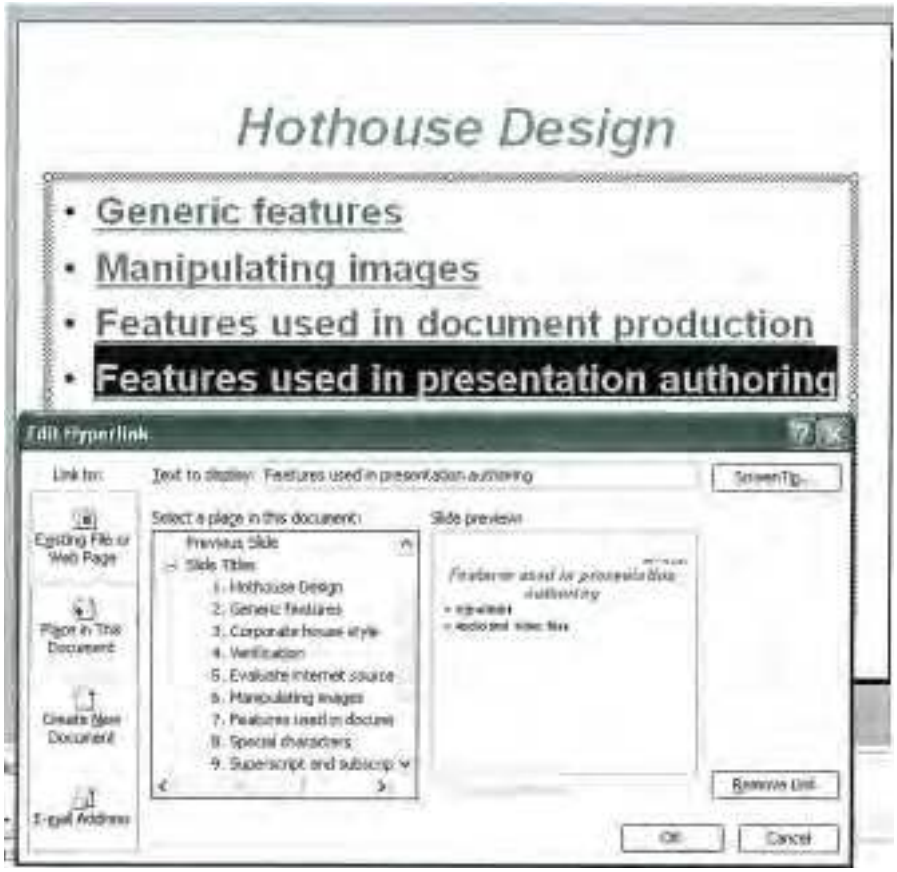

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## Examiner comment – grade A

### Spreadsheet

The initial values printout of the spreadsheet scored fifteen of the seventeen available marks. The header was 100% correct and the spreadsheet excerpt was made to fit a single page. All data and labels were fully visible. There was evidence that row 2 had been deleted as specified, this was also verified in the cell references examined in the formulae printout. six marks were awarded for the correct data entry, relating to the dates entered into the spreadsheet. A blank row 8 was inserted in the correct place and the data label 'Project 6' was also entered with 100% accuracy, and the word 'Advertisement' was globally changed to 'Project' for the other 5 rows in the sheet. The candidate was required to enter the date, 23rd July 2010, into cell J7 but translated this to the month of June when entering 23/06/10 and was awarded no mark for this. The 'Start date' and 'End date' columns were formatted as specified but the 'Full start date' column did not have the full start date formatted as specified in step 21. The candidate name, Centre number and candidate number were placed in the footer of the spreadsheet.

The printout of the formulae and functions used had the header correctly edited and the orientation of the page set to landscape. The printout does not contain any evidence of row and column headings, which cost the candidate two potential marks. All of the formulae and labels are fully visible and all three formulae placed in the 'Day', 'Month' and 'Year' columns performed their task efficiently. The calculation entered by this candidate into the 'End date' column also worked as specified and the mixed use of addition and sum, although not the most efficient solution was worthy of full marks.

The function used to count the number of end dates during the weekend was well structured and efficient. This candidate made a very good attempt to produce the correct results for the 'Full start date'. All calculations (including the concatenation of strings) for this date were completed as required but the format of 'dd/mm/yy' was incorrect as step 21 gave the example of '01 January 2010 (Winter)' which required text formatting for 'dd mmmmmmmm yyyy'. The calculation for the 'Months' column did not take into account the month and year data and perform a calculation using this. Although the candidate had subtracted one month from another they had taken the end date from the start date, rather than the start date from the end date. This column gained no marks.

### Chart

The data series selected for the production of this chart contains the total days for each of the projects. Of the two marks available, a single mark was awarded for this extra data series. No marks were awarded for the selection of the correct chart type. As the correct data series represented a linear time line with four component parts a stacked bar chart was the most appropriate chart type, no marks were awarded for the vertical bar chart. Full marks were awarded for labelling the chart, both title and axis labels were meaningful and appropriate to the data presented. Although the contents of the title were appropriate, it was not an appropriate size when compared to the axis labels. The candidate name and number were placed in the footer of the page rather than on the chart as specified in the question paper. A final mark was awarded for the correct inclusion of a legend identifying each data series.

### Evidence document

All of the hyperlinks were created as specified and scored full marks. Each of the three internal hyperlinks was from the correct text and connected to the correct slide. The hyperlink from the text 'Hothouse website' linked to the correct external URL. The screenshot containing evidence that the two specified files had been added to a compressed (zipped) file gained the candidate two marks and was exemplary. The screen shot showing the evidence of the filenames, types, sizes and date and time of saving was also an excellent example gaining full marks for this section. All of the required data was clearly visible. A maximum of two marks could be attained for explaining the underpinning theory behind zipping files, one mark was attained as a benefit of the doubt for the first answer of stopping viruses because of macros and other executable elements in the packages described, although the use of package names rather than generic names for the application packages does weaken this answer. Although this answer is not in the mark scheme it was deemed an appropriate response to the question and was therefore awarded. The second candidate response of making documents easier to email is incorrect. If this candidate had continued the answer to discuss file size related to transmission time they would have gained this mark.



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# Example candidate response – grade C

Planning time for projects

| Estimated Production dates | Start date | Day | Month | Year | Planning | Design | Creation | Installation | End date | Full start date | Months |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Project 1 | 29/11/10 | 29 | 11 | 2010 | 50 | 24 | 30 | 6 | 16/03/11 | Autumn | 4 |
| Project 2 | 29/11/10 | 29 | 11 | 2010 | 32 | 22 | 50 | 10 | 23/03/11 | Autumn | 4 |
| Project 3 | 30/11/10 | 30 | 11 | 2010 | 30 | 21 | 46 | 7 | 13/03/11 | Autumn | 4 |
| Project 4 | 01/12/10 | 1 | 12 | 2010 | 36 | 28 | 42 | 21 | 07/04/11 | Winter | 5 |
| Project 6 | 02/12/10 | 2 | 12 | 2010 | 45 | 45 | 72 | 14 | 27/05/11 | Winter | 6 |
| Project 5 | 03/12/10 | 3 | 12 | 2010 | | | | | | | |

End dates during a weekend

2

Formulae and Functions used

| | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Estimated Production dates | Start date | Day | Month | Year | Planning | Design | Creation | Installation | End date |
| 2 | Project 1 | 40510 | =DAY(B2) | =MONTH(B2) | =YEAR(B2) | 50 | 24 | 30 | 6 | =B2+F2+G2+H2+I2 |
| 3 | Project 2 | 40511 | =DAY(B3) | =MONTH(B3) | =YEAR(B3) | 32 | 22 | 50 | 10 | =B3+F3+G3+H3+I3 |
| 4 | Project 3 | 40512 | =DAY(B4) | =MONTH(B4) | =YEAR(B4) | 30 | 21 | 46 | 7 | =B4+F4+G4+H4+I4 |
| 5 | Project 4 | 40513 | =DAY(B5) | =MONTH(B5) | =YEAR(B5) | 36 | 28 | 42 | 21 | =B5+F5+G5+H5+I5 |
| 6 | Project 5 | 40514 | =DAY(B6) | =MONTH(B6) | =YEAR(B6) | 45 | 45 | 72 | 14 | =B6+F6+G6+H6+I6 |
| 7 | Project 6 | 40515 | =DAY(B7) | =MONTH(B7) | =YEAR(B7) | | | | | |
| 8 | | | | | | | | | | |
| 9 | End dates during a weekend | | | | | | | | | |
| 10 | =COUNTIF(K2:K6,"Winter") | | | | | | | | | |

Formulae and Functions used

| | K | L |
|---|---|---|
| 1 | Full start date | Months |
| 2 | =VLOOKUP(MONTH(B2),NXMONTH.csv!$A$1:$B$12,2,FALSE) | =MONTH(J2-B2) |
| 3 | =VLOOKUP(MONTH(B3),NXMONTH.csv!$A$1:$B$12,2,FALSE) | =MONTH(J3-B3) |
| 4 | =VLOOKUP(MONTH(B4),NXMONTH.csv!$A$1:$B$12,2,FALSE) | =MONTH(J4-B4) |
| 5 | =VLOOKUP(MONTH(B5),NXMONTH.csv!$A$1:$B$12,2,FALSE) | =MONTH(J5-B5) |
| 6 | =VLOOKUP(MONTH(B6),NXMONTH.csv!$A$1:$B$12,2,FALSE) | =MONTH(J6-B6) |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |


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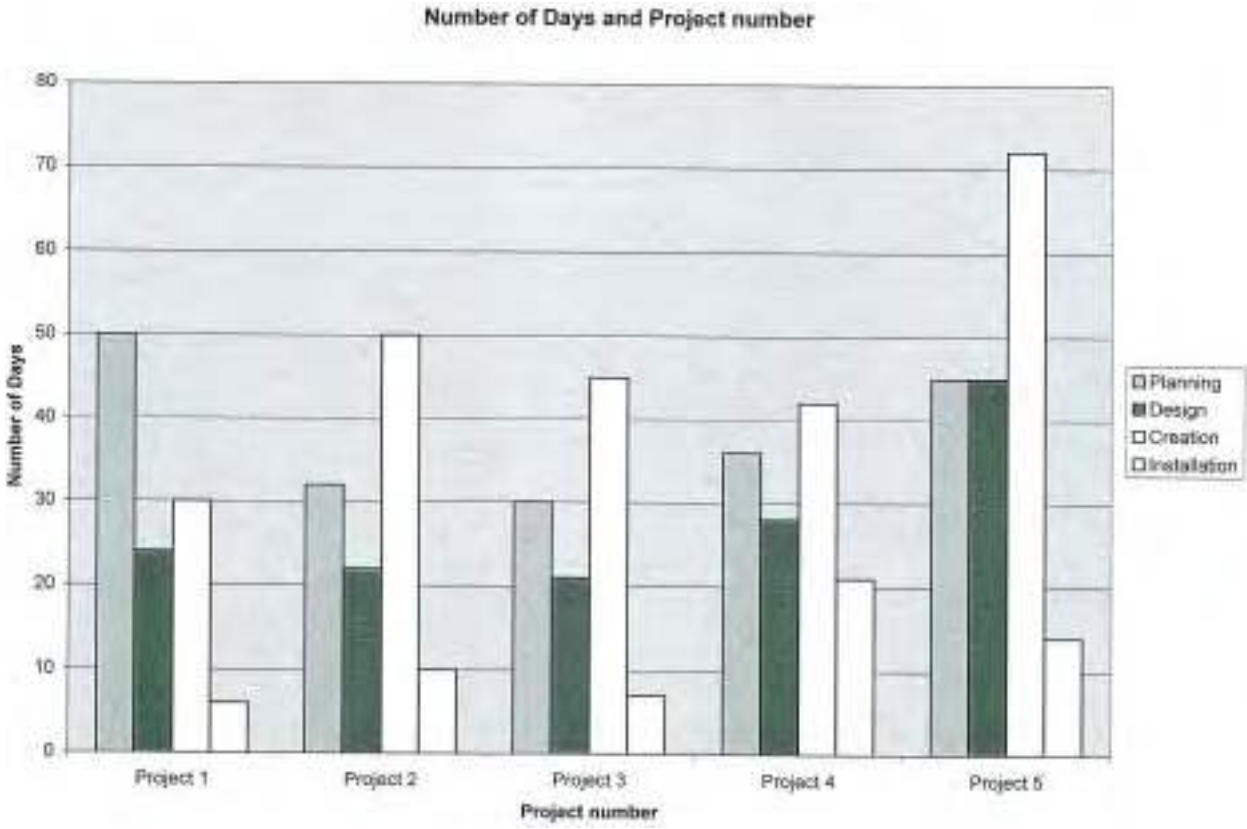


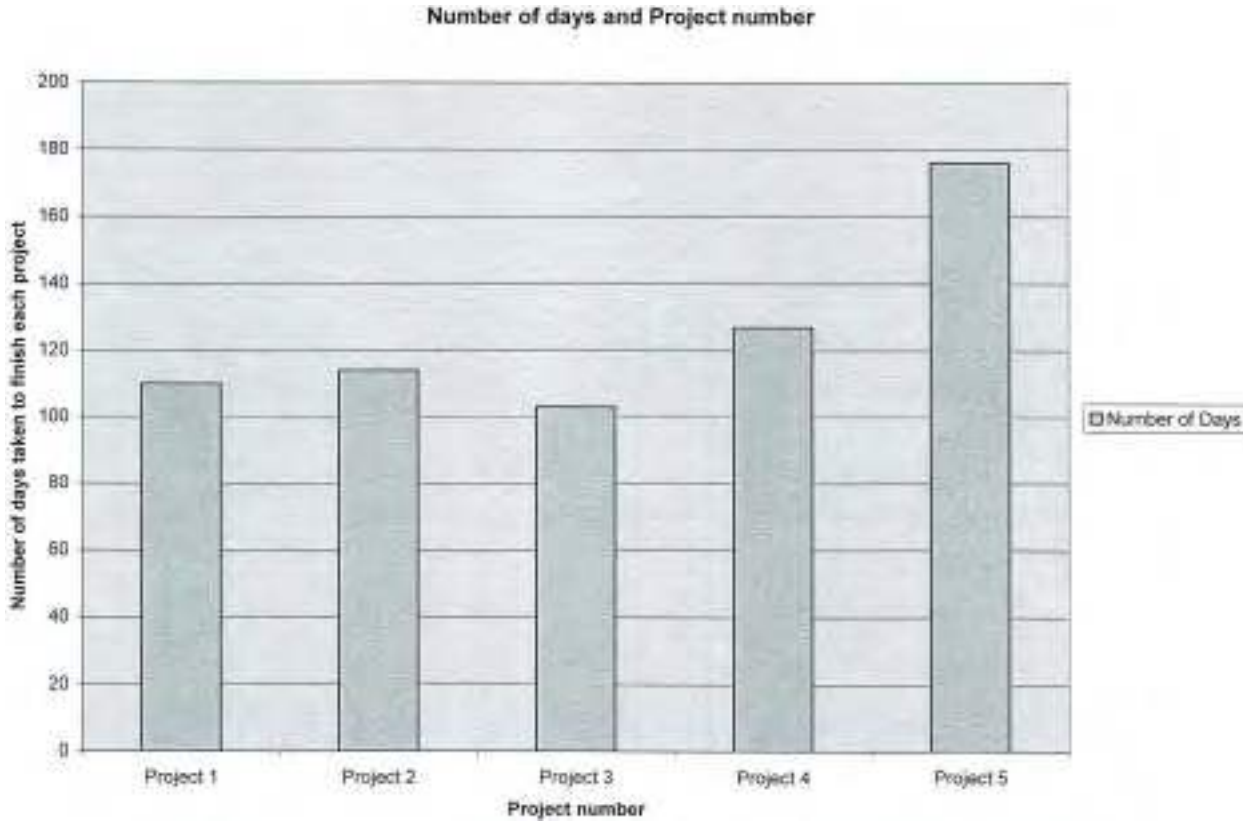




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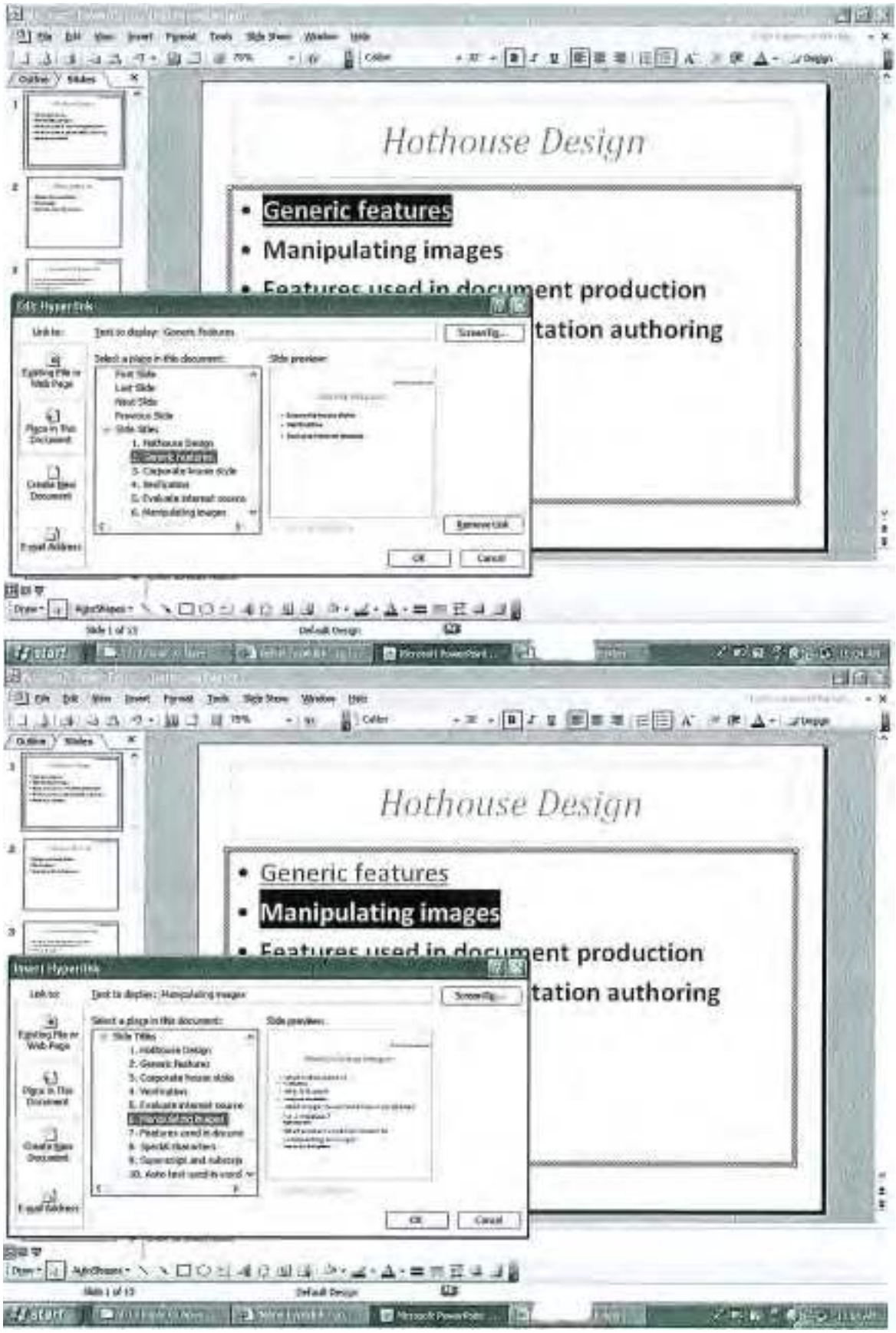



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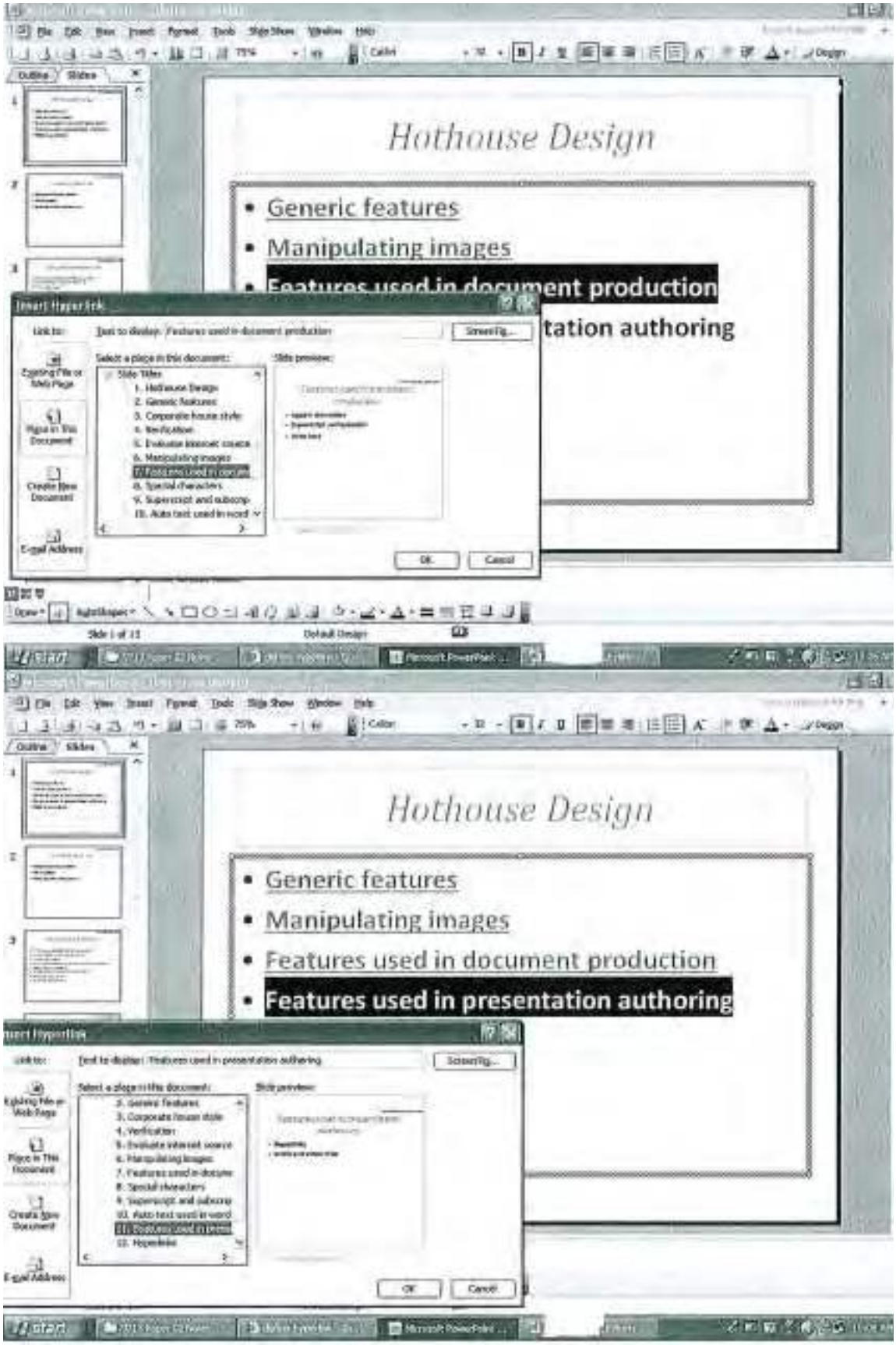




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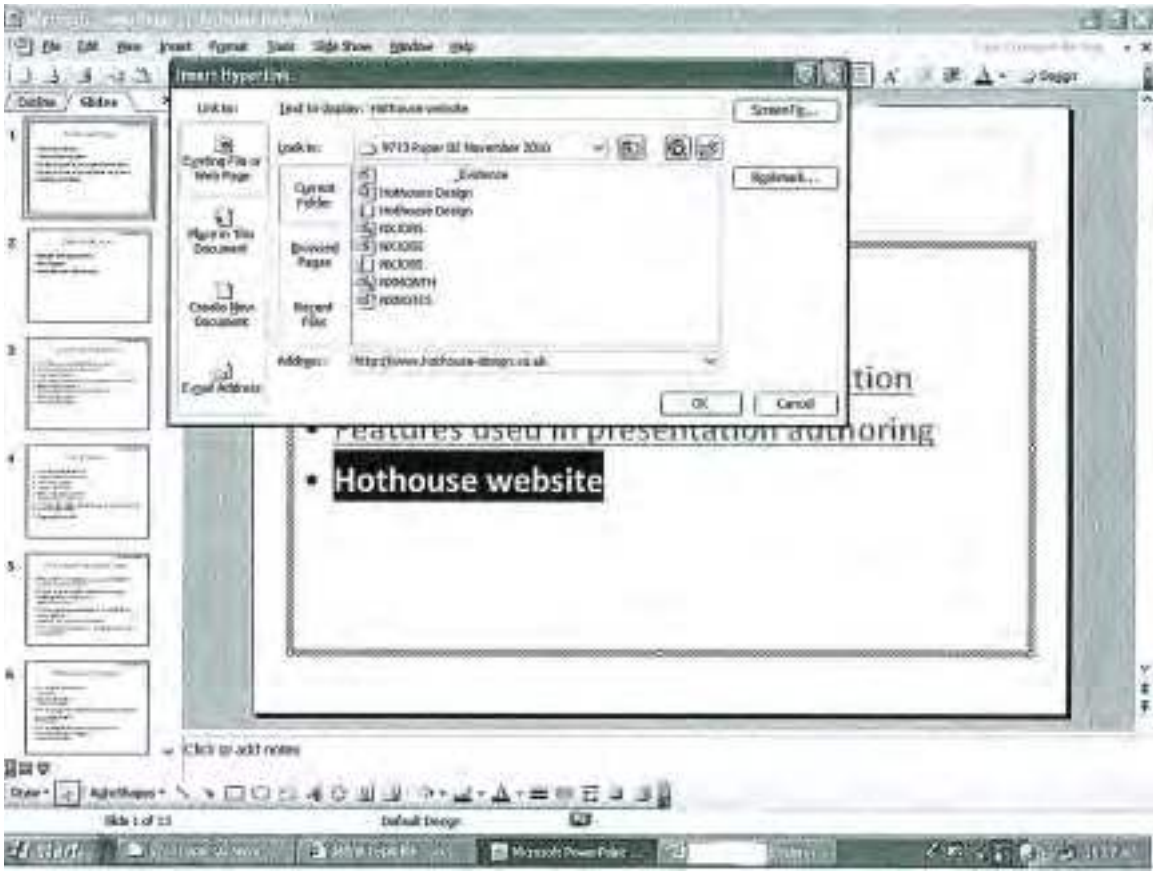



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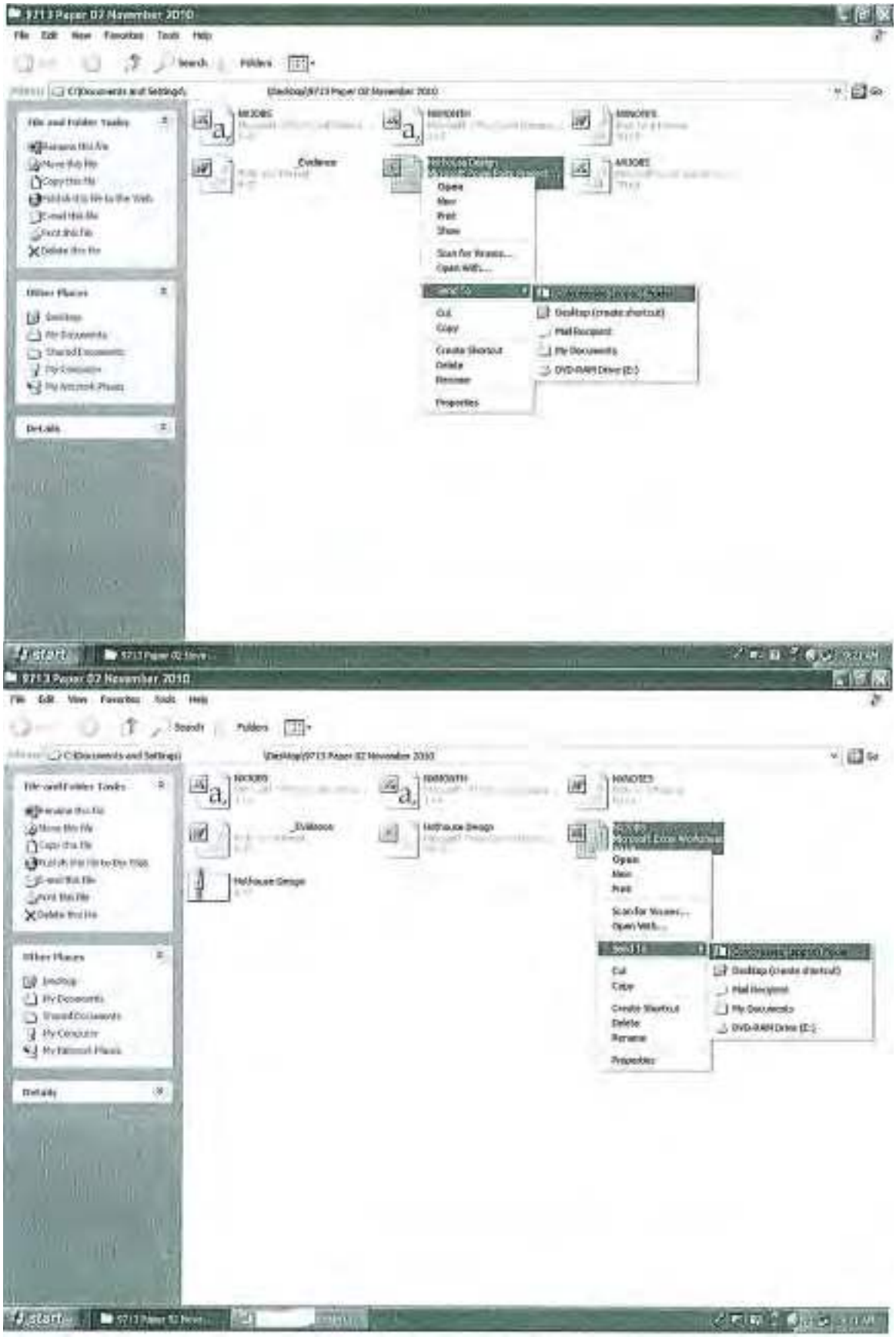



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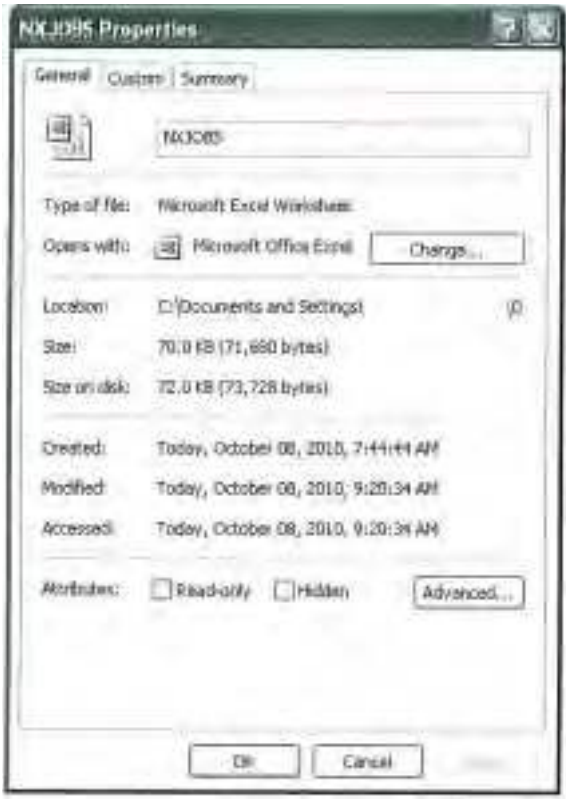


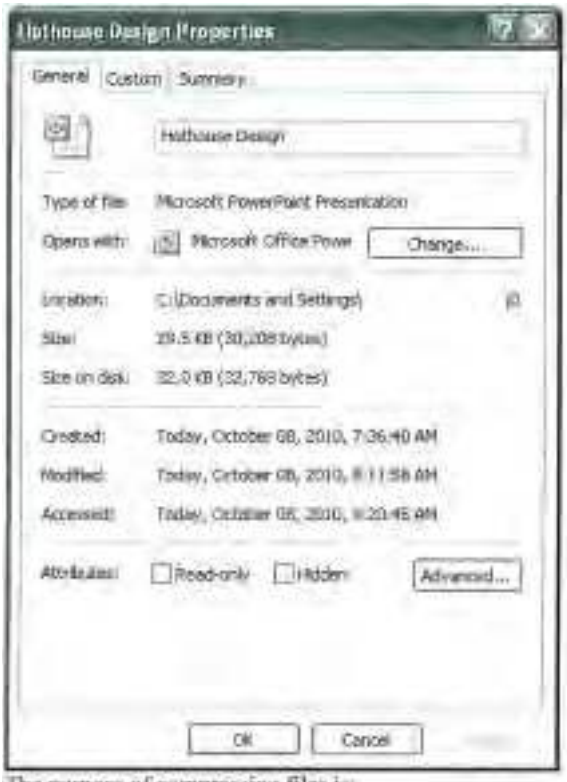


The purpose of compressing files is:
To save space
It takes less time to upload onto the internet, for example as an attachment in email therefore consumes fewer resources when accessing data.


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# Examiner comment – grade C

## Spreadsheet

The initial values printout of the spreadsheet scored ten of the seventeen available marks. The header was 100% correct and the spreadsheet excerpt was made to fit a single page. All data and labels were full visible. There was evidence that row 2 had been deleted as specified, this was also verified in the cell references examined in the formulae printout. Only one of the six marks was awarded for the correct data entry, with the first cell being entered as specified but replicated to give dates for the next five days rather than the dates specified in the question paper. A blank row 8 was inserted in the correct place and the data label 'Project 6' was also entered with 100% accuracy, and the word 'Advertisement' was globally changed to 'Project' for the other 5 rows in the sheet. The candidate was required to enter the date 23rd July 2010 into cell J7 but this was omitted. The 'Start date' and 'End date' columns were formatted as specified but the 'Full start date' column contained only the name of the season rather than the full start date and the name of the season. The candidate name, Centre number and candidate number were placed in the footer of the spreadsheet.

The printout of the formulae and functions used had the header incorrectly edited (there is a case error) but the orientation of the page is set to landscape which gained a mark. The printout contains evidence of row and column headings, so a further two marks were awarded. All of the formulae and labels are fully visible and all three formulae placed in the 'Day', 'Month' and 'Year' columns performed their task efficiently. The calculation entered by this candidate into the 'End date' column also worked as specified using repeated addition statements, although not the most efficient solution was worthy of full marks.

The function used to count the number of end dates during the weekend was well structured and efficient and although this gave an incorrect answer it was a consequential follow through error, so full marks were awarded. This candidate made no visible attempt to create a formatted full start date as shown in the question paper, but did use a lookup function with the correct cell references within the month function, and with the correct external file and references. The formulae used to calculate the months showed some understanding in that the correct cells for subtraction of the months were identified and used. However this candidate did not demonstrate any understanding that the year portion of the dates may have an impact upon the results, particularly where the duration of a task ran from one year into the next.

## Chart

The data series selected for the production of this chart was 100% correct and gained the two marks available. No marks were awarded for the selection of the correct chart type. As the correct data series represented a linear time line with four component parts a stacked bar chart was the most appropriate chart type, no marks were awarded for the vertical bar chart. Full marks were awarded for labelling the chart, both title and axis labels were meaningful and appropriate to the data presented. The contents of the title were appropriate and the title was of appropriate size when compared to the axis labels. The candidate name and number were placed in the header of the page rather than on the chart as specified in the question paper. A final mark was awarded for the correct inclusion of a legend identifying each data series. This candidate included a second chart in the submission. As one submission (the first) had already been identified, and no evidence that either printout was a copy not to be marked (for example by crossing it through) this printout was not considered for marking by the examiner.

## Evidence document

Full marks were scored by this candidate on this section. All of the hyperlinks were created as specified and scored full marks. Each of the three internal hyperlinks was from the correct text and connected to the correct slide. The hyperlink from the text 'Hothouse website' linked to the correct external URL. The screenshot containing evidence that the two specified files had been added to a compressed (zipped) file gained the candidate twpmarks and was exemplary. The screen shot showing the evidence of the filenames, types, sizes and date and time of saving was also an excellent example gaining full marks for this section. All of the required data was clearly visible. A maximum of two marks was attained for explaining the underpinning theory behind zipping files.



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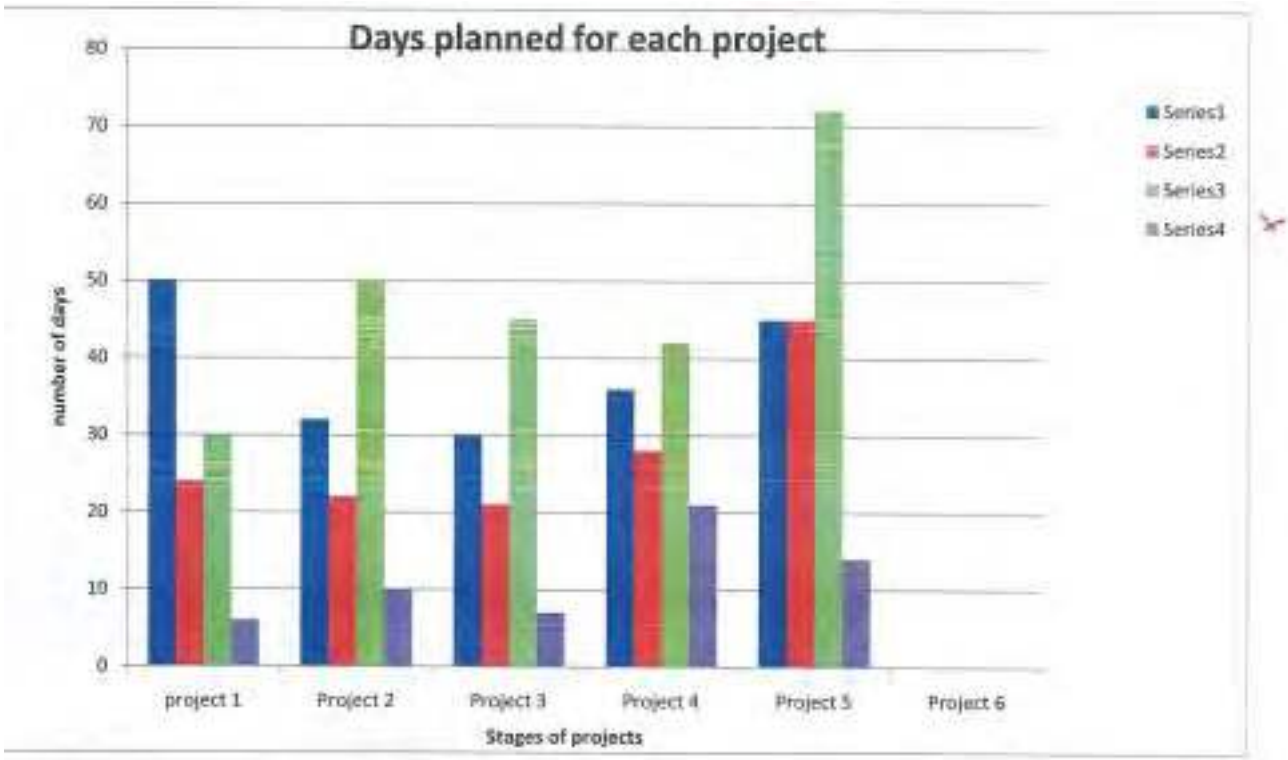
## Example candidate response – grade E

**Planning time for projects**

| Estimated Production dates | Start date | Day | | Month | Year | Planning | Design | Creation | Installation | End date | Full start date | Months |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| project 1 | 26/11/2010 | ✓ | 28 | 11 | 2010 | 50 | 24 | 30 | 6 | 20/01/30 | Autumn | 40490 |
| Project 2 | 16/10/2010 | ✓ | 16 | 10 | 2010 | 32 | 22 | 50 | 10 | 16/01/30 | Autumn | 40451 |
| Project 3 | 11/02/10 | ✓ | 11 | 2 | 2010 | 30 | 21 | 45 | 7 | 12/01/30 | Winter | 40206 |
| Project 4 | 30/11/2010 | ✓ | 30 | 11 | 2010 | 36 | 28 | 42 | 21 | 08/01/30 | Autumn | 40504 |
| Project 5 | 12/01/09 | ✗ | 12 | 1 | 2009 | 45 | 45 | 72 | 14 | 04/01/30 | Winter | 39821 |
| Project 6 | 23/07/10 | ✗ | 23 | 7 | 2010 | | | | | | | |

End dates during a weekend





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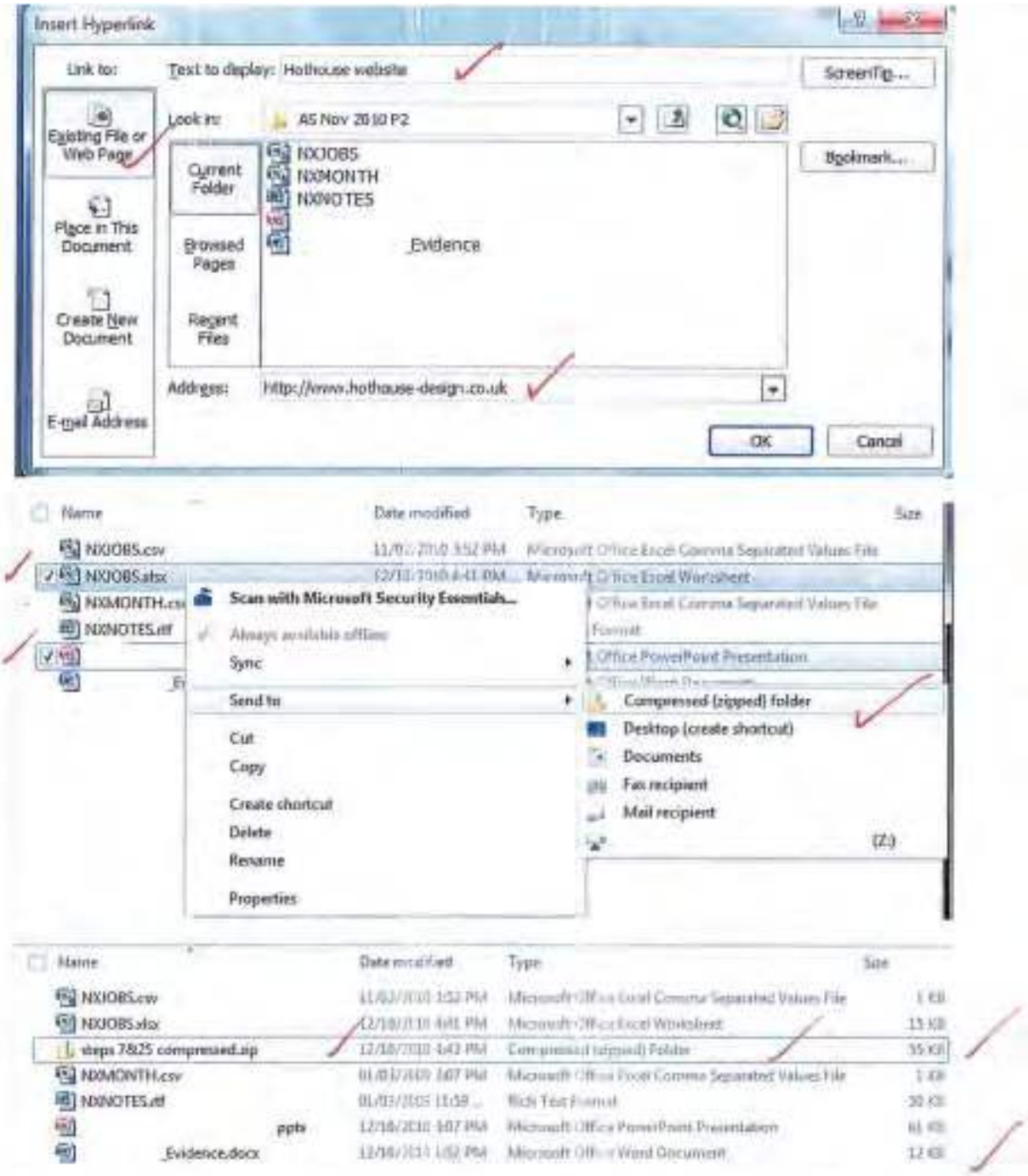


**We compress these file to reduce the size of it and to keep it in a separate folder that will be easy to find.**

## Examiner comment – grade E

## Spreadsheet

The initial values printout of the spreadsheet scored twelve of the seventeen available marks. The header was 100% correct and the spreadsheet excerpt was made to fit a single page. All data and labels were full visible. There was evidence that row 2 had been deleted as specified, this was also verified in the cell references examined in the formulae printout. Only four of the six marks was awarded for the correct data entry, with the first four cells being entered as specified, the fifth with the month and day reversed in the cell and an incorrect year entered. The final cell in the start date column contained the data expected at the bottom of the end date column. A blank row 8 was inserted in the correct place and the data label 'Project 6' was also entered with 100% accuracy, and the word 'Advertisement' was globally changed to 'Project'



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for the other 5 rows in the sheet. The candidate was required to enter the date 23rd July 2010 into cell J7 but this was located in cell B7. The 'Start date' and 'End date' columns were not formatted as specified, in the start date column there were different date formats used. The 'Full start date' column contained only the name of the season rather than the full start date and the name of the season. The candidate name, Centre number and candidate number were placed in the footer of the spreadsheet.

The printout of the formulae and functions used had the header correctly edited and the orientation of the page is set to landscape which gained two marks. The printout does not contain evidence of row and column headings. All of the formulae and labels are fully visible and all three formulae placed in the 'Day', 'Month' and 'Year' columns performed their task efficiently. The calculation entered by this candidate into the 'End date' column did not work as the candidate attempted to count the number of occurrences rather than add the job durations to the start date. One mark was awarded for the correct replication of all formulae entered.

The function used to count the number of end dates during the weekend contained errors, the range specified did not cover all the available rows and the reference to the specified data was within the range and subject to change if other cells were amended. Only one of the four available marks was awarded for this function. This candidate made no visible attempt to create a formatted full start date as shown in the question paper, but did use a lookup function, although with incorrect correct cell references ( a range was specified ) but with the correct referencing to the external file. The formulae used to calculate the months did not show any understanding of the need to use functions to select the months and years, nor did this candidate demonstrate any understanding that the year portion of the dates may have an impact upon the results, particularly where the duration of a task ran from one year into the next.

## Chart

The data series selected for the production of this chart was incorrect as it also contained an additional column for Project 6. No marks were awarded for the selection of the correct chart type. As the correct data series represented a linear time line with four component parts a stacked bar chart was the most appropriate chart type, no marks were awarded for the vertical bar chart. Full marks were awarded for labelling of the category axis, but not for the labelling of the value axis. The initial capitalisation of the text was different in both cases. The chart title was not deemed detailed enough to be awarded the mark, it is vital that chart titles give the reader as much information about the purpose of the chart as possible. The chart title was of appropriate size when compared to the axis labels. The candidate name and number were placed in the header of the page rather than on the chart as specified in the question paper. A final mark was not awarded for the correct inclusion of a legend identifying each data series as the candidate had selected the default series labels series 1, series 2, etc.

## Evidence document

Eleven marks were allocated to correctly setting up the hyperlinks. There was no evidence presented for three of the four slides which should have contained hyperlinks. On the fourth slide, where the screen shot evidence was present, all three marks were awarded as the candidate had created the hyperlink from the text 'Hothouse website' linked to the correct external URL. The screenshot containing evidence that the two specified files had been added to a compressed (zipped) file gained the candidate two marks and was exemplary. The screen shot showing the evidence of the filenames, types, sizes and date and time of saving was also an excellent example gaining full marks for this section. All of the required data was clearly visible. The candidate responses to the reasons for compression did mention reducing the file size, in this case the candidate was given the benefit of the doubt for this answer but the second part of their answer about the file being easy to find was not worthy of a mark.


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# Paper 3

## Scenario 1

Popular Individual Electronics Ltd (PIE) is an electronics company that is going to develop a new home entertainment system. PIE needs to undertake market research before they produce a prototype which can then be approved for production. The project manager, Derek, has to consider the technical features and produce a financial model.

There are a number of teams involved in producing the prototype, including a hardware development team and a software development team.



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## Question 1

1 (a) Describe how each of these pieces of hardware will be used in the home entertainment system.

(i) MP3

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..... [2]

(ii) USB port

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..... [2]

(iii) Secure Digital Memory card

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..... [2]


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**(b)** Explain how the company would assess the market for its new product by using computer-assisted telephone interviewing.

[4]

**(c)** Explain how ICT would be used to analyse the results from this research.

[3]



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## Mark scheme

1 (a) (i) Any **two** points from:
Compatible format for media playing systems/

Playback music files\ability to listen to music files
Data is compressed compared to a CD
Results in 90% compression/- reducing file size/additional storage
NOT any comment on quality [2]

(ii) Any **two** points from:
Enables music to be transferred to from the HMC (note to markers include playing or recording)
Upload firmware upgrades
Linking to other hardware [2]

(iii) Any **two** points from:
SD is used to record programmes on DAB radio
Programmes/files can be transferred to music centre
Music on music centre can be recorded onto SD card and transferred to mobile phone
Additional storage device [2]

(b) Any **four** from:
Computer dials a telephone number from a list selected people/randomly
System displays details of interviewee
Interviewee asked a question from a script
Response recorded on operator's screen
Script software decides on next question
Record stored
Responses analysed [4]

(c) Any **three** points from
Because questions are multiple choice can be directly input into computer system
Requiring no human interpretation
Results stored in a database/spreadsheet
Filters can be applied to select interviewees e.g. by age group/gender
Results presented as report/graph [3]


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## Example candidate response – grade A

1 (a) Describe how each of these pieces of hardware will be used in the home entertainment system.

(i) MP3

- Music can be stored in this MP3 format and so may be played through the speakers
- MP3 is part of the music centre and will allow songs to be heard

[2]

(ii) USB port

- USB port will allow external media to be played
- This can be audio or video that will be stored on the USB device
- The USB device will be needed to plug into the port

[2]

(iii) Secure Digital Memory card

- This is a storage device that will allow all types of media to be saved.
- This can be found on cameras, allowing digital photographs to be taken
- Can then be connected to the entertainment system and viewed on large screen

[2]



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(b) Explain how the company would assess the market for its new product by using computer-assisted telephone interviewing.

- PIE can set up a call centre within the company or make use of external call centres
- A random telephone number may be called and questions regarding consumer preferences can be stored
- The conversation may either be stored or the interviewer may write consumer answers down
- Different consumer types may be interviewed
- Results from the CAPI can be made into a market research report.
- Questions to be asked can be found on screen, using script software.
- Technical help can also be obtained. [4]

(c) Explain how ICT would be used to analyse the results from this research.

the results would be entered into the computer using a keyboard by the operator. A file would be created with these results and spreads spreadsheet software could be used to make any necessary calculations as well as producing graphs. Word processing software would be used to produce any reports with the findings. A printer would be needed to print these files. Database management system would be used to store such information separated into different categories, such as costs, features that need to appear in the final product... [3]

## Examiner comment – grade A

**1(a)(i)** The candidate has explained that MP3 is a compatible format for storing music files which allows playback of the music on various devices, however, the second point about MP3 being part of the music centre is too vague for a mark as it is difficult to know whether the candidate means the MP3 file format or an actual MP3 player. For the second mark here there would have needed to be a comment about either significant compression or the ability to use MP3 devices as additional storage for the entertainment system.

**Mark awarded = 1 out of 2**


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**1(a)(ii)** Taking the first and third points together, the candidate has correctly responded that a USB port enables other devices or media to be connected to the home entertainment system. However, the second point is too vague for a mark at this level. Just saying that something can be 'played' is really not enough, it is the concept of transferring **files** from an external device to the home entertainment system which are then played that is mark-worthy.

**Mark awarded = 1 out of 2**

**1(a)(iii)** The candidate has correctly shown that an SD card can be used as additional storage for the first mark. The second and third points taken together also convey a stronger idea of files being transferred between the SD card and the home entertainment system, so in this case the answer is mark-worthy.

**Mark awarded = 2 out of 2**

**1(b)** Setting up a call centre is irrelevant to how the company would assess the market. Dialling a random telephone number is worth a mark, as is the fact that the responses from the interviewee are stored for later use and the use of script software. While they are correct statements, the other points written are not worthy of credit at this level. For the final mark the candidate needed to realise that it was the computer doing the dialling and selecting the potential interviewees, or that the sequence of questions asked by the interviewer were decided by the script software dependent on previous responses.

**Mark awarded = 3 out of 4**

**1(c)** Marks were awarded for the candidate knowing that spreadsheet or database software would be used to store the results of the market research, and that software could be used to produce graphs and a report. However, the use of a printer and storing the data in different categories does not answer the question of how the results would be analysed. What else was required here was an understanding that as responses to the interview are often from multi-choice questions the data can be input directly into the computer system without any human intervention. A good explanation of the filtering of the results into different categories such as age or gender would also have been mark-worthy.

**Mark awarded = 2 out of 3**



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## Example candidate response – grade C

1 (a) Describe how each of these pieces of hardware will be used in the home entertainment system.

(i) MP3

MP3 music system can be used to listen to music. They can be connected to speakers or even the television and the output can be audio or video. MP3 files are small but have good quality so many can be stored in an mp3 device. [2]

(ii) USB port

USB ports can be used to insert memory sticks or any other storage devices which might contain music files or videos the viewer can watch. Those can be played on the television direct out of storage device. [2]

(iii) Secure Digital Memory card

This memory card can contain some encrypted data which might be video or audio. This can be inserted into the recievers where cards help encrypt the data in order to obtain output. [2]


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(b) Explain how the company would assess the market for its new product by using computer-assisted telephone interviewing.

CATI can be used to interview target public by calling them from call centres. They are asked numerous questions out of a script ~~that~~ which the person answers and the answers are recorded into the database which later compares the answers by some calculations. Percentage answers can be obtained: Company can see if the target public is happy with the product or if they have some complaints. All this is recorded in their database system. [4]

(c) Explain how ICT would be used to analyse the results from this research.

Spreadsheets can be used to store the answers and later analyse them. Call centres use the computer telephony service to interview the target public over telephone. Calculations are made and graphs or charts can be made. Quantitative and qualitative data can be dealed seperately. [3]

## Examiner comment – grade C

**1(a)(i)** The candidate has not applied the answer to the scenario. All points made are generic and statements such as 'MP3 music systems can be used to listen to music' are really much too simplistic for this level of study. The candidate has not described how the MP3 player will be used with or in the home entertainment system.

**Mark awarded = 2 out of 2**

**1(a)(ii)** Here the candidate has applied the scenario. They have understood that the USB port allows other hardware to be connected and this in turn allows the transfer of files which can be played on the home entertainment system. Hence the answer merits both the available marks.

**Mark awarded = 0 out of 2**



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**1(a)(iii)** This answer is completely off the point and does not apply to the given scenario at all. Encryption of the data has no bearing on the use of an SD card in a home entertainment system. There are no valid points in this answer.

**Mark awarded = 0 out of 2**

**1(b)** The candidate has scored the marks in the first six lines for knowing that a target audience is asked questions from a script and their responses are saved. After that the answer becomes irrelevant as it is talking about how the results would be analysed rather than how the market research would be conducted.

**Mark awarded = 3 out of 4**

**1(c)** Marks were awarded for the candidate knowing that spreadsheet software would be used to store the results of the market research, and that software could be used to produce graphs. The rest of the answer is irrelevant, no mention of filtering by age or gender etc.

**Mark awarded = 2 out of 3**


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## Example candidate response – grade E

1 (a) Describe how each of these pieces of hardware will be used in the home entertainment system.

(i) MP3

MP3 is the most favorably-used format for songs in today's era. It compresses the songs to impeceable quality and perfect output. It is the format that will be used for songs or other audio multimedia to be played in synchronization with the home-entertainment system. [2]

(ii) USB port

USB ports are a very useful way to join other multimedia such as MP3 player or pen-drive containing songs. It will be installed in the home entertainment system so that the user can connect a USB pen drive or portable hard-disk or even a digital camera to their system. [2]

(iii) Secure Digital Memory card

An SD Memory card can be considered as a storage device. Its storage capacity may vary between 64 Megabytes to 16 Gigabytes. It can store songs, pictures, videos or any multimedia we want to store on it. If a port for such a card is installed in the home entertainment system, it will be very easy and beneficial for the user as they can connect their SD memory card at will. [2]



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(b) Explain how the company would assess the market for its new product by using computer-assisted telephone interviewing.

CTI (Computer-assisted Telephone Interviewing) is a very common way nowadays to interview random or known people and get their opinion on an upcoming product, service or policy etc. A selected person or group of people, may be from a hired call centre, will call the targetted audience for the offered product from their computers and ask them a series of decided questions just like a survey. Their computers may have computer telephony integrated software. The people called may be known to have a history of using that particular type of product. The answers given to the questions asked are recorded. [4]

(c) Explain how ICT would be used to analyse the results from this research.

The recorded answers may be kept in hard copy or soft copy. For example, they may kept in form of a spreadsheet with a new worksheet for every seperate caller and their responses recorded alongside with their comments on particular questions. These results may be represented in the form of statistics using ICT e.g in form of a pie-chart showing the percentage of people who were in favour of the new product and the percentage of people who disapproved of it. [3]

## Examiner comment – grade E

**1(a)(i)** The candidate has explained that MP3 format is one of the most compatible formats available and so has scored one mark. Other than that there is nothing in the answer that is worth further credit. Other formats compress songs, what is particular to MP3 is the level of compression.

**Mark awarded = 1 out of 2**

**1(a)(ii)** There is an understanding that a USB port can be used to connect other hardware devices, but beyond that there is nothing worth further marks. The candidate talks about connecting devices, but has failed to mention transfer of files.

**Mark awarded = 1 out of 2**


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**1(a)(iii)** Most of this answer is describing what an SD card is and not how it could be used in a home entertainment system. The last sentence where the candidate does mention the home entertainment system is far too general to gain marks at this level.

**Mark awarded = 0 out of 2**

**1(b)** This answer does not take into account the role of the computer in CTI. It reads as if the telephone operator is doing all the actions, when in this method it is the computer who selects the audience and the computer which dials the numbers. There is one mark-worthy point right at the end for recording the responses.

**Mark awarded = 1 out of 4**

**1(c)** Marks were awarded for the candidate knowing that spreadsheet software would be used to store the results of the market research, and that software could be used to produce graphs namely a pie chart. The rest of the answer is irrelevant, no mention of filtering by age or gender etc.

**Mark awarded = 2 out of 3**



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# Scenario 1

Popular Individual Electronics Ltd (PIE) is an electronics company that is going to develop a new home entertainment system. PIE needs to undertake market research before they produce a prototype which can then be approved for production. The project manager, Derek, has to consider the technical features and produce a financial model.

There are a number of teams involved in producing the prototype, including a hardware development team and a software development team.

## Question 2

**2** **(a)** Describe how Derek, the project manager, would use a financial model during the planning stage.

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..... [3]

**(b)** Describe the data that Derek would input into the finished model.

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(c) Explain how project management tools could be used to monitor the progress in producing the prototype home entertainment system.

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..... [4]



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## Mark scheme

2 **(a)** Any **three** points from
Company inputs predicted costs/values as data
Model outputs production costs/staff required
Profit prediction made
System values are adjusted-'what if' scenario
Use of goal-seek/break even point
Costs of individual parts are totalled [3]

**(b)** Any **three** points from:
Cost of materials
Cost of manufacturing
Projected sales figures
Estimated selling price of system
Projected economic conditions
Profit margin required
Variable to adjust for break even calculation [3]

**(c)** Use of any **four** of the following:
Milestones identified
...such as selection of hardware components
Time required for each stage set
Project broken into smaller tasks
Tasks that can run in parallel identified
...such as write software and design casing
Tasks dependent upon previous ones identified
...e.g. cannot determine software until hardware decided
% Progress reported week by week
Alarms if task is late/ reminder when task due to finish or start
Critical path identified through whole project
Allocate resources
Identify workloads
GANTT chart illustrating project
Use of PERT
Event chain diagrams [4]


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## Example candidate response – grade A

2 (a) Describe how Derek, the project manager, would use a financial model during the planning stage.

A financial model can be used to predict how much capital Derek would need to create the new system. A break-even chart can be produced to decide on the price of the new system in order to make a profit. Production costs as well as the costs of the raw materials would be entered. A financial plan could then be produced showing the 'exact' figure he will need to pay, giving him the option to ask for a loan before he starts if he hasn't got enough money for the initial investment. [3]

(b) Describe the data that Derek would input into the finished model.

Derek would ~~am~~ input production costs, advertisement costs as well as the cost of the raw materials in order to create a financial plan of the capital needed to create the product. Prices of similar products of competitors would be entered to produce the selling price of the product, together with the costs involved in its production, to create a break-even chart. [3]



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(c) Explain how project management tools could be used to monitor the progress in producing the prototype home entertainment system.

Project management allows the user to use time, resources and budget efficiently. A calendar function would be used to store any important dates, such as when the system has to be finished, as well as setting reminders so the user doesn't forget. Any clashes would be revealed to the user. Usage reports would be used to set the optimal time needed to be spend on each stage so that the project is completed on time. Stopwatch application would be used to measure how much time is spend but also as a predictor of the time spend. Critical [4] paths could make the user aware of the order and time in which each stage has to be completed and gantt charts would be used to define which tasks go parallel to each other and which have to go sequential to each other (in order).

## Examiner comment – grade A

**2(a)** This was an excellent answer on the **use** of a financial model applied to the scenario given. The candidate realised that the project manager would be inputting predicted values and that the model could then be used to generate predicted outcomes. There was no mention of the ability to change variables in the model to see what would happen in different scenarios, but the candidate had made enough valid points to score full marks.

**Mark awarded = 3 out of 3**

**2(b)** Another excellent answer which was applied to the scenario in the question. The candidate has listed three pieces of data that would be entered into the financial model, production costs, costs of raw materials and an estimated selling price. Other correct items that could have been mentioned would have been estimated sales figures, the prevailing economic conditions and the required profit margin; however these were not necessary as the candidate had scored full marks.

**Mark awarded = 3 out of 3**

**2(c)** This candidate had clearly understood the difference between a financial model and project management software and had given four good ways in which project management software could be used in this situation. The storing of important dates and the setting of reminders are both worth marks as is the use of a stopwatch application. Critical path analysis is also worthy of credit as is the use of Gantt charts to identify tasks which may be completed in parallel and those which must be done sequentially. There are several more marks in this answer than the number allocated to the question.

**Mark awarded = 4 out of 4**


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## Example candidate response – grade C

2 (a) Describe how Derek, the project manager, would use a financial model during the planning stage.

He will produce a financial model which he can use to get an idea of the expenses, profits and benefits of the project. He can use it to predict the financial crisis if they get short of money. He can clearly plan out how much they will spend on the project and what is the range in which they can complete it. [3]

(b) Describe the data that Derek would input into the finished model.

He would put in the details of prices of different items. He will put in the maximum and minimum amount of expenses which they might have to spend. The data will contain the amount of taxes payed and amount of loan which might be needed from bank. He would put in the wages of any staff which would be required [3] in the project.



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(c) Explain how project management tools could be used to monitor the progress in producing the prototype home entertainment system.

Gantt charts and pert charts can be used to analyse how much time will a specific task require. Critical path analysis can be tested. Calenders will be used to arrange meetings with the staff. The progress of project can be recorded in a form which tells how much percentage of work has been completed. The workers who are required to make the prototype can be assigned tasks in a given amount of time. The amount of money spent on each task can be analysed and this helps maintaining financial balance during the project. [4]

## Examiner comment – grade C

**2(a)** The candidate clearly understands what a financial model is, but has some difficulty in explaining how it would be used in this scenario. Some marks for planning his expenditure and using it to predict profit, but even these statements are actually quite weak for candidates at this level.

**Mark awarded = 2 out of 3**

**2(b)** Two marks for knowing that the model would need the price of the components and that it would also require a limit on expenditure but again the description is not clear and the last half of the answer is totally irrelevant.

**Mark awarded = 2 out of 3**

**2(c)** Project Management software is well understood or learned and most candidates are able to list enough different types of project management tools to get the marks. In this case Gantt charts, PERT charts, Critical Path Analysis and Calendars.

**Mark awarded = 4 out of 4**


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## Example candidate response – grade E

2 (a) Describe how Derek, the project manager, would use a financial model during the planning stage.

A financial model may be used by Derek to illustrate the cost of the home entertainment system. The different equipment and parts that would make up the whole home entertainment system can be looked up and their average prices downloaded and represented in a financial model to show to the electronics company what they are dealing with and what the final output would be like to give them a clearer picture. [3]

(b) Describe the data that Derek would input into the finished model.

The data that Derek would have to input would be the list of components that would, when put together, make up the home entertainment system. The labour required to put up that system and the overall cost of every component and the wages that would need to be paid or the cost that would need to be paid for each component. Derek may also have to input a total summary of all this in the finished model. [3]



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(c) Explain how project management tools could be used to monitor the progress in producing the prototype home entertainment system.

Project management tools could be very useful in monitoring the progress of producing the prototype of a home entertainment system. Pert Charts and Gantt Charts may be drawn to distribute different tasks between the different teams i.e software team and hardware team. Time management software may be employed so that important and less important tasks can be prioritized and completed on time. Tasks that can run parallel to each other and ~~ones~~ Ones that need to be completed beforehand can be differentiated. [4]
All this can be monitored using the project management tools which can keeps tabs on the percentage of work done and left to be completed.

## Examiner comment – grade E

**2(a)** The candidate seems to have a vague understanding of what a financial model would be used for and has mentioned inputting the costs of the components, but that is all. There is no indication of any further use of the model in what-if scenarios or profit prediction etc.

**Mark awarded = 1 out of 3**

**2(b)** Again this answer focuses on costs and doesn't go any further. Costs of components and costs of production are vaguely mentioned, but there is a general lack of further detail which would be expected for high marks at this level.

**Mark awarded = 2 out of 3**

**2(c)** Project Management software is well understood or learned and most candidates are able to either list enough different types of project management tools or to state some uses to get the marks. In this case Gantt charts, PERT charts, and the identification of parallel and sequential tasks.

**Mark awarded = 4 out of 4**


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## Scenario 2

The Bank of Smalltown has branches all over the world. It uses an intranet for the transfer of information between branches. Customers are concerned about the security of their personal data held in the bank's computer systems. When a customer applies for a bank loan an expert system is used to see if the loan can be approved.

The bank has a website for online banking.

The bank uses video conferencing suites for communication. It wishes to support schools by providing the basic hardware and software to enable them to communicate with the bank and with each other using video conferencing.



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## Question 3

3 **(a)** Describe **four** ways that the intranet would be used.

[4]

**(b)** Describe the concerns that the customers may have in relation to computer fraud.

[4]


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## Mark scheme

3 **(a)** Any **four** points from:
Intranets provide secure local email
Intranets enable employees to co-ordinate activities
e.g. book video conference suite/arrange a meeting through seeing one another's diaries
Intranet provides fast access to company data
Hold company templates
Hold company specific information secure from the general public
Forums can be set up for discussion of confidential matters
Provides a means of informing employees about news
NOT video conferencing [4]

**(b)** Any **four** points from:
ID theft
Money taken from personal accounts
Credit card theft when card account number/PIN intercepted
Delete Worries about on-line banking
In reality computer fraud can be prevented by encryption of transmitted data
The probability of being hacked is very low
Phishing or Pharming is a problem
Too easy to be fooled into providing personal details
Keyloggers can be used
Use of personal information
- To commit criminal acts resulting in blame for individual
- Purchase of items charged to individual [4]



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## Example candidate response – grade A

3 (a) Describe **four** ways that the intranet would be used.

One way would be to post any notices for its employees instead of having to place them on a notice board. A public calendar could be placed so that employees and employers are aware of important dates. A phone directory could be entered with all the telephones a worker might need to contact and confidential data could be place / send through here instead of using the internet, avoiding any security problems such as hacking, viruses or spyware.

[4]

(b) Describe the concerns that the customers may have in relation to computer fraud.

Customers may be afraid of hackers from obtaining their personal details, such as account numbers and passwords, and using them as if he is were their own - identity theft. Customers may be afraid of phishing where personal details are asked to be send through e-mail, or from downloading spyware into their computer, such as key-logging software where personal details are intercepted as any key presses by the user are recorded. Finally, they might be afraid of pharming where he browser's traffic would be redirected to a hacker's identical websites and where personal details would be entered as usual / sending them automatically to the hacker. [4]


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## Examiner comment – grade A

**3(a)** This was an excellent answer on the use of an intranet as opposed to the Internet. Posting notices for employees instead of using a notice board, a public calendar and a phone directory are all good uses of an intranet. The candidate is also clearly aware that intranets are used for security reasons and has included this in the last statement about sending confidential data avoiding security problems with the Internet.

**Mark awarded = 4 out of 4**

**3(b)** Again a very good answer with sufficient good points for full marks. Identity theft, phishing and pharming **with explanations** and key-logging **with explanation** are all worth marks. Hacking on its own would not have been mark-worthy without further explanation of how the hacker would use the information gained.

**Mark awarded = 4 out of 4**

## Example candidate response – grade C

3 (a) Describe **four** ways that the intranet would be used.

- The intranet provides an email system, reduces labour and post cost.
- It helps in keeping employers and employees more in contact, from all branches, and also helps in bringing them up to date with organisational policies.
- Allows for forums, where discussions can take place to solve problems.
- Also a calender is available, this will help in setting scheduling meetings, at appropriate times. [4]



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(b) Describe the concerns that the customers may have in relation to computer fraud.

Computer fraud includes the hacking of computer systems and user accounts which might lead to the customer information being leaked out. The information can be misused. Emails from the bank can contain viruses or spam. The customers' bank account information can be passed on to traitors and all their money can be used in minutes. Their passwords can be identified due to the key logging system. They are concerned about the security of their bank accounts. [4]

## Examiner comment – grade C

**3(a)** The first two points that the candidate makes apply equally well to the Internet. If the word secure had been included in the first statement, that is, 'provides a secure email system' then it would have been mark-worthy. The second statement is just not intranet specific. The third and fourth points, however, are worth marks.

**Mark awarded = 2 out of 4**

**3(b)** The first half of this answer is generic and does not address the question of customer concerns. There are two valid points in the second half of the answer regarding money being transferred and passwords identified because of key-logging, but that is all.

**Mark awarded = 2 out of 4**


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## Example candidate response – grade E

3 (a) Describe **four** ways that the intranet would be used.

The intranet would be most basically used to communicate information between the branches and for the mangers of different branches of diferent regions to be in contact. The intranet may be used to communicate customer's information from branch to branch. It may also be used to communicate information of the employee's from branch to branch in case employee's are transferred. Instant messaging, video conferencing may be used for employee's to communicate with each other and share their work experiences. [4]

(b) Describe the concerns that the customers may have in relation to computer fraud.

Customers may feel insecure as intranet is a personal network of the bank and they might have the image that their information is not secure on such a network. The information may be intercepted when being communicated and a person may pretend to be a customer and tamper with someone' elses money. Customers may feel insecure thinking that someone can do online shopping on their money or change their details so as to cause inconvenience to the customer. Some information of the customer may be very privat such as marital status which they would not want any body else to find out. Illegal transactions can be made. [4]

## Examiner comment – grade E

**3(a)** This response does not say anything about an intranet that does not apply equally to the Internet. It does not apply to the scenario given; it could apply to any organisation with several branches. The points made are far too vague to gain credit at this level.

**Mark awarded = 0 out of 4**



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**3(b)** Here the candidate seems to have applied the question to computer fraud over intranets, which does not make sense, but underlies the fact that the candidate has a poor understanding of what an intranet is used for. There is one valid point about customers feeling insecure because there may be unauthorised access to their money, but overall again the statements are far too general and lack sufficient depth and detail to gain credit at this level.

**Mark awarded = 1 out of 4**

## Scenario 2

The Bank of Smalltown has branches all over the world. It uses an intranet for the transfer of information between branches. Customers are concerned about the security of their personal data held in the bank's computer systems. When a customer applies for a bank loan an expert system is used to see if the loan can be approved.

The bank has a website for online banking.

The bank uses video conferencing suites for communication. It wishes to support schools by providing the basic hardware and software to enable them to communicate with the bank and with each other using video conferencing.


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## Question 4

4 **(a)** Describe **three** features you would expect to see on the online banking website's login page.

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..... [3]

**(b)** Explain an authentication technique that could be used by a customer of the bank in making transactions.

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..... [3]



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(c) Describe what is meant by each of the following and explain why the bank uses them in its business.

(i) VPN

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..... [3]

(ii) VOIP

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..... [3]


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(iii) Proxy servers

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..... [3]

## Mark scheme

4 (a) Any **three** points from:
Login boxes/user id and password
Remember my user id
Registration hyperlink for customers to set up Internet banking
Hyperlink to other bank services e.g. loans application
Password reminder facility
FAQ/help
Information about bank's security software
Download link for security software
Warning about phishing
Accessibility options
Indication of security e.g. padlock in browser
Not security question [3]

(b) Any **three** points from:
Device to generate one off code/TAN sent by email
Use of chip and PIN
IP address logging
Security question/letters from a security code (NOT password but memorable data)
Biometric device e.g. face recognition using webcam or fingerprint
Digital certificate
Bank to call back/text message customers [3]



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**(c)** Any **three** from:

**(i)** Virtual Private Network
Secure means of tunnelling using public network
Cheaper than creating a private WAN
Used by staff remotely to access system [3]

**(ii)** Voice over Internet Protocol
Uses Internet/Intranet to carry telephone calls
Sound input is compressed for transmission
Requires dedicated software
Inter-branch/international calls are cheaper than landline calls [3]

**(iv)** Proxy server

Acts as a buffer between a LAN and a WAN/Internet
Filters requests from users/returned pages
Uses a cache of requested pages hence reducing time to download a page
Only requires 1 network link to the Internet
Enables better management of the usage of the Internet
Forwards user requests to appropriate server
Returns web pages requested if allowed
Stores pages for faster browsing [3]

## Example candidate response – grade A

**4 (a)** Describe **three** features you would expect to see on the online banking website's login page.

- Username and password
- A help facility, including a Frequently Asked Question page to assist customers
- A link to the list of services that the bank offers
- A currency converter
- Authentication of the web site

[3]


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(b) Explain an authentication technique that could be used by a customer of the bank in making transactions.

→ biometric data. This is data that only the customer has & nobody else.
→ Fingerprint reading can be used by the bank since it is very difficult to forge a fingerprint
→ Finger-print is unique to every customer.
→ Eye-scan that detects that iris of the customer.
→ Customer could answer a security question or use a string of password that only customer has the answer to [3]

(c) Describe what is meant by each of the following and explain why the bank uses them in its business.

(i) VPN

A virtual private network is an extranet secure network which uses encryption, firewalls, IPSec, authentification techniques and authorisation and accounting protocol. It is cheaper than a LAN - costs saved, and can be accessed from outside the bank allowing workers to telework. It is based on a public access network and uses tunnelling (encryption) for security - a [3]

(ii) VOIP secure data transmission method for the bank to send confidential data.

Voice over the Internet protocol is used to have conversations over the Internet. It compressed sound into smaller bits so that data can be transmitted fast enough for it to appear to be real-time.
It could be used by the bank to make international calls to clients/partners as a fixed rate is payed, paying the same amount as when making a [3]
local call → saving costs.
reducing.



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(iii) Proxy servers

A proxy server acts as a buffer between a LAN and a WAN. It sends requests from the client machine to the server across the Internet. It is displayed on the web browser and the server can filter any information the bank would want to filter, such as info. from specific Media Access control addresses

[3]

## Examiner comment – grade A

**4(a)** The candidate has listed five good points all of which would be worth marks; however, there are only three available. Technically it would be an input box for the username and password that would be seen, or space to enter the username and password, and it would have been good to see how the website would be authenticated, for example, https or a padlock in the browser bar, but there is evidence of sufficient understanding here to award the marks.

**Mark awarded = 3 out of 3**

**4(b)** The question asks for authentication techniques and the candidate has given two good responses for two marks. Biometric data that is unique to an individual and the response to a security question. Unfortunately, the first four points made by the candidate all refer to biometrics for which there is just one mark. Password on its own is not an authentication technique; it is the username/password combination that is required. The candidate could have said that a device to generate a one-off code could be used, or that the bank could call or text the customer back on a pre-arranged telephone number for the final mark.

**Mark awarded = 2 out of 3**

**4(c)(i)** The candidate has given a very good answer, initially expanding the acronym which gained the first mark. The remainder of the first five lines, however, is not specific to a VPN; these techniques are also used in other networks. The candidate has applied the answer to the scenario by saying how the VPN allows teleworking for the bank because of the additional security and this is an excellent point as is the fact that the VPN provides a secure means of tunnelling whilst based on public networks.

**Mark awarded = 3 out of 3**

**4(c)(ii)** This is again an excellent answer with more valid points than there are marks available. The correct expansion of the acronym gains the first mark, the ability to have a conversation over the Internet is the second mark and the compression of the sound input gains the third mark, all in the first three lines of writing. Another mark could have been gained from the final statement about international calls costing the same as local ones but the answer had already gained full marks.

**Mark awarded = 3 out of 3**

**4(c)(iii)** This candidate has clearly learned what a proxy server is for and has answered the question well stating the role of the proxy server as a buffer, sending of requests to the Internet and filtering out unwanted transmissions. Even though the answers required are generic in nature, the candidate has still managed to relate the answer to the given scenario by stating that the proxy server filters out anything that the bank would want to filter. This is an excellent example of good practice.

**Mark awarded = 3 out of 3**


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## Example candidate response – grade C

4 (a) Describe **three** features you would expect to see on the online banking website's login page.

There would be space to enter username and password. There would be drop down menus to select letters to be entered in password. They might be asked a secret question. There would be an option of help if the users have any problems logging into the system. There would be contact details somewhere on the page which would contain the banks contact number to the call centres. [3]

(b) Explain an authentication technique that could be used by a customer of the bank in making transactions.

Passwords can be used. A few words of the password can be asked to enter. The customer can answer a secret question or fill a form which contains their personal details which can help the bank identify that the right person is making transactions. Questions like mother's maiden name or place of birth can be answered. [3]



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(c) Describe what is meant by each of the following and explain why the bank uses them in its business.

(i) VPN

Virtual Private Network. It is used by banks in order to maintain their business network. This network can be accessed by specific people and is not physical. Banks use it to keep their information safe and to share the information easily through a private network with large bandwidth and secure blockers. [3]

(ii) VOIP

Voice over internet protocol is used by banks so employees can communicate with their colleagues in other offices or even communicate by users. VoIP conversation is similar to conversation using landline phone but is usually much cheaper (especially overseas calls) - the price depends on ISP. [3]

(iii) Proxy servers

Proxy servers acts as a buffer between LANs and WANs. Proxy servers allows bank LANs to connect to internet [3]


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## Examiner comment – grade C

**4(a)** This was a good answer with three very valid points. Space to enter username and password, help function and contact details. The secret question is unlikely to be on the log-in screen, this is more likely to be used for authentication once logged-in.

**Mark awarded = 3 out of 3**

**4(b)** This candidate does not seem to be too sure what is meant buy authentication. A password on its own is not enough; it is the username/password combination that is required. The secret question is mark-worthy, but filling in a form is irrelevant and the last sentence is a repeat of the secret question.

**Mark awarded = 1 out of 3**

**4(c)(i)** The candidate has gained one mark for expanding the acronym, but then the rest of the answer is far too general to gain marks at this level. There is no mention of security or tunnelling and there does not seem to be any realisation that a VPN uses existing public networks.

**Mark awarded = 1 out of 3**

**4(c)(ii)** This is a good answer to this question. There is one mark for fully expanding the acronym, another mark for stating that VOIP is a conversation much like a landline telephone and a third mark for saying that overseas calls are much cheaper.

**Mark awarded = 3 out of 3**

**4(c)(iii)** The first statement is worth a mark; however, the second statement simply repeats the content of the first statement but in the context of the question, so is not worth a second mark.

**Mark awarded = 1 out of 3**



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## Example candidate response – grade E

4 (a) Describe **three** features you would expect to see on the online banking website's login page.

One would be text boxes for username/ account number and password so that a person can securely log in to their account which has a secret password their own choice. The login page may illustrate a high-class image of the bank which may be impressive. It may contain a 'Forgot Your Password?' option in case a user has forgotten his or her password. It may contain a list of instructions of how to log on for first-time users. [3]

(b) Explain an authentication technique that could be used by a customer of the bank in making transactions.

A customer may have a secret pass-code only known to them, so that whenever transactions are being made, the pass-code needs to be entered. In addition, the bank may provide a feature in which whenever a transaction is asked to be made, the bank server communicates a secret random passcode to the customer via text message so only they can know it and enter it to make the transaction successful. This random passcode may have a limited validity time. [3]


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(c) Describe what is meant by each of the following and explain why the bank uses them in its business.

(i) VPN

VPN stands for Virtual Private Network. This may be a network which connects people only from the top-most echelon of the bank. It is a virtually private network which may be used to communicate extremely private information such as security techniques used by the bank or upcoming new techniques that may be employed to enhance security. [3]

(ii) VOIP

VOIP stands for Voice Over Internet Protocol. It is the ability to have phone-conferencing over the internet. TCP/IP is used to transmit the data. It is quick and a cheap way of communication over the internet. The bank may use it to have instantaneous contact with mangers or other branches in case there's an emergency. [3]

(iii) Proxy servers

Proxy servers are unique servers with their own proxy. They are used to transmit data in form of packets as information over the internet. They are a quick and secure way to transmit data over the internet. [3]



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## Examiner comment – grade E

**4(a)** This question did not cause any difficulty for candidates of any standard. Most seemed to be very familiar with the content of an on-line banking login screen and the overall mark was very high. The candidate has scored the full three marks for text boxes, forgot your password option and instructions for a first time user. Three sensible options. High class images of the bank are irrelevant, but there are enough marks elsewhere.

**Mark awarded = 3 out of 3**

**4(b)** There are two good marks in this answer for the concept of the bank communicating a random pass-code by text message to the customer; however the first part of the answer seems to be more like passwords than anything else. There seems to be a general misunderstanding about the use of passwords as an authentication technique. It is the password/username combination that is required, not just the password.

**Mark awarded = 2 out of 3**

**4(c)(i)** One mark for expanding the acronym, but the rest of the response is irrelevant. The candidate does not mention anything about using existing public networks or a VPN providing a means of secure tunnelling. The answer is too lightweight to gain any credit at this level.

**Mark awarded = 1 out of 3**

**4(c)(ii)** One mark for expanding the acronym and one for phone-conferencing over the internet. The rest of the answer is not detailed enough to gain any further marks. The bank is more likely to be able to have instantaneous contact via the usual channels rather than VOIP.

**Mark awarded = 2 out of 3**

**4(c)(iii)** This answer demonstrates no understanding of what a proxy server is. There is nothing here that deserves a mark.

**Mark awarded = 0 out of 3**


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## Scenario 2

The Bank of Smalltown has branches all over the world. It uses an intranet for the transfer of information between branches. Customers are concerned about the security of their personal data held in the bank's computer systems. When a customer applies for a bank loan an expert system is used to see if the loan can be approved.

The bank has a website for online banking.

The bank uses video conferencing suites for communication. It wishes to support schools by providing the basic hardware and software to enable them to communicate with the bank and with each other using video conferencing.

## Question 5

**5** The bank uses video conferencing suites to arrange meetings between groups of directors in different countries.
The schools use their video conferencing facilities to allow groups of students to communicate with students at other schools.
Compare and contrast these two different uses of video conferencing. [8]

## Mark scheme

**5** Any **eight** points comparing from:
Hardware and software comparison
e.g. bandwidth, size of screens, costs, dedicated suites
How they are used compared
e.g. high level directors discussion compared to learning projects in school
Security considerations
communications requirements
Quality of transmission

Maximum of 6 marks for just one system [8]



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## Example candidate response – grade A

5 The bank uses video conferencing suites to arrange meetings between groups of directors in different countries.
The schools use their video conferencing facilities to allow groups of students to communicate with students at other schools.
Compare and contrast these two different uses of video conferencing.

The banks main use of videoconferencing would be for business purposes. These meetings would be international, making the conference more expensive. There will usually be less participants than in a school conference and the images transmitted should be of a very high quality. High definition webcams and screens would be needed. A large screen would be used to be able to see all the participants ~~too~~ and the broadband connection should be wide enough to avoid connection losses or out-of-sink images. The files shared would be ~~At a school, the conferen~~ graphs, reports or confidential documents.
At schools, conferences would be used for educational purposes. A projector would be used to display all participants and its quality may be a bit lower as important or confidential matters are not being discussed. Multimedia presentations with notes on some topics could be shared. The cost would be lower than for banks as the quality and speed do not need to be optimal here. Microphones, speakers, videoconferencing software and a server are used in both cases. [8]

## Examiner comment – grade A

**5** Here the candidate has looked at the information given in both the original scenario and in the question and has placed their answer in that context. They have looked at the differences in usage of the video-conferencing system between the bank and the school, the differences in the hardware and software requirements and differences in transmission speeds that would be acceptable. The answer is written in good flowing prose and is logically structured and a number of very valid points have been made. A further consideration that is missing is that of security requirements.

**Mark awarded = 7 out of 8**


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## Example candidate response – grade C

5 The bank uses video conferencing suites to arrange meetings between groups of directors in different countries.
The schools use their video conferencing facilities to allow groups of students to communicate with students at other schools.
Compare and contrast these two different uses of video conferencing.

Both of these use the same hardware and software like microphones and camera are needed High bandwidth internet is needed to produce good quality sound and picture. The bank can share the documents on screen easily whereas the students can also share their quizes with each other if they have them on computer. Bank needs a more secure system as they need to discuss confidential matters and to save time they need a good output voice and picture. The students do not need the video conference urgently as the bank might need sometimes. The bank staff cannot be gathered on a short notice, that too from different countries so they need to arrange these conferences whereas the students might want to talk to a student in a different school but same country so they can even visit the schools and it wont be that urgent. So basically a bank might find this way of communication more beneficial than the school. [8]

## Examiner comment – grade C

**5** The candidate has discussed the differences between the bank and the school in terms of hardware requirements and software needs and quality of transmission, but has then strayed off the point into a discussion of how video-conferences are arranged in general, rather than comparing the banks use with the school use what is what the question asked.

**Mark awarded = 3 out of 8**



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## Example candidate response – grade E

5 The bank uses video conferencing suites to arrange meetings between groups of directors in different countries.
The schools use their video conferencing facilities to allow groups of students to communicate with students at other schools.
Compare and contrast these two different uses of video conferencing.

The banks uses video-conferencing as a purely business way to arrange meetings between groups of directors ofe different countries. This is all very formal in contrast to video-conferencing between school children. The directors are mostly all formally-dressed and discuss important business matters such as expansion of a branch which may be over burdened or deletion of a branch which is not very useful. They may discuss security matters. Video conferencing is very useful to them as they don't have to fly over to other countries to discuss matters. Meal costs, travelling cost and accomodation costs are not to be paid for. In contrast to this, school children using videoconferencing is a learning experience. They may be informally-dressed and behave like kids. No important matters are to discussed but it is a good practice as it shows children the use of ICT and helps them to be social. They may exchange knowledge and interruptions or quality does not matter as much as it does in the other case. [8]

## Examiner comment – grade E

**5** There is some comparison between the usage of the bank and the school and mention of quality issues which is deserving of marks, but that is all. Much of this answer is irrelevant. The question does not ask about how the directors of the bank or the students would be dressed, it asks for a comparison of how the video-conferencing would be used in the two situations.

**Mark awarded = 3 out of 8**


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## Scenario 2

The Bank of Smalltown has branches all over the world. It uses an intranet for the transfer of information between branches. Customers are concerned about the security of their personal data held in the bank's computer systems. When a customer applies for a bank loan an expert system is used to see if the loan can be approved.

The bank has a website for online banking.

The bank uses video conferencing suites for communication. It wishes to support schools by providing the basic hardware and software to enable them to communicate with the bank and with each other using video conferencing.

## Question 6

**6** Explain why the use of the expert system for approving a loan would benefit the bank.

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..... [3]

## Mark scheme

**6** Any **three** points from:
Much faster to reach a decision for bank
Reduced number of bad debts for bank
...gives more accurate advice than a bank employee
Leading to better customer satisfaction
Reduced staffing required to deal with customer requests
...lowers payroll [3]



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## Example candidate response – grade A

6 Explain why the use of the expert system for approving a loan would benefit the bank.

An expert system would contain information about what factors increase the chances of a customer paying a loan. The expert system would ask base questions to the user, compare them with its knowledge base using a rules base and inference engine, and say an answer. This would decrease the chances of the bank supplying a loan which will never be payed back - saving a lot of money to [3]
the bank. Also, less staff could be needed as the expert system could do the job of some ~~clerks~~ clerks or analysts - saving costs to the business. Finally, an expert system contains knowledge from more than 1 expert and so its decisions would be more accurate. If experts leave the bank, the expert system can still be used.

## Examiner comment – grade A

**6** The first six lines of this answer, whilst still being in the context of the given scenario, do not answer the question of why the use of the expert system would benefit the bank. It is all about what the expert system would contain or do not how it would benefit, and so there are no marks for this part of the answer. However, towards the end of the answer the candidate does write about decreasing the chance of bad debts and the need for fewer staff which in turn saves costs, all of which are benefits to the bank and so do gain marks.

**Mark awarded = 3 out of 3**


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## Example candidate response – grade C

6 Explain why the use of the expert system for approving a loan would benefit the bank.

There wont be any staff member required to sit at the table and ask questions the loan appliers and therefore customers might even feel unfortable especially in answering embarrasing questions. One staff member less means less wages. The ~~[illegible]~~ system would ask each question and might even ask further questions on the base of previous answers. The [3]
expert system asks exactly the required questions and this process is fast so queues can be avoided in banks.

## Examiner comment – grade C

**6** The candidate has scored marks for realising that fewer staff would be required and so the wage bill would be reduced, however, the rest of the response is about what an expert system does and not how it would benefit the bank, hence there are no further marks awarded.

**Mark awarded = 2 out of 3**



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## Example candidate response – grade E

6 Explain why the use of the expert system for approving a loan would benefit the bank.

It may prove to be beneficial as it is quick process. The expert system is more knowledgeable compared to one individual as it possesses the knowledge of multiple experts which have expertise in that area, therefore it may be more accurate. It compares all the credit history of the person in question and draws up statistics and the probability if the loan should be passed or not in a matter of seconds whereas this would take longer for a human being. A bank can process through alot more ~~loan~~ loan requests in a day with it. [3]

## Examiner comment – grade E

**6** The answer demonstrates an understanding that the expert system would provide a faster response and that it is likely to be more accurate, but these are generic answers, the scenario is considered only briefly. There is no consideration of required staff or of possible reduction in bad debts.

**Mark awarded = 2 out of 3**


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## Scenario 3

A Local Government Authority uses ICT in many ways. One of these is a website to provide the residents with up-to-date information. The authority is concerned about the digital divide.

## Question 7

7 Describe what the residents would use the website for.

[6]



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## Mark scheme

7 Any **six** points from:
Population could apply to go on electoral register
Read local government news
Log into their local tax records
Email local government
Apply for official documents e.g. driving licence or passport
Search for local government decisions on planning/budgets/policies
Read a blog from local government
Look for a job with local government
Pay tax/bills to local government
Apply for grants
Identify members of govt
Look up maps
Access details of registered businesses
Find details of local facilities Opening times of services/schools/tounsm/hospitals
Voting online for local elections
Submit a tender for a contract
NOT online shopping except for specific Local Gov items e.g. book to pass the driving test [6]

## Example candidate response – grade A

7 Describe what the residents would use the website for.

Residents could use the website to inform themselves about any events, competitions or parties that are going to take place in the area. Resident certificates could be asked for online and send home, avoiding the need to take transport. Any grants or subsidises for disabled or students can be asked for here or if not information about them will appear. Taxes can be payed online by using web forms and e-payment facilities. The aims of the current government can also be found here as well as the electoral register with all the people who have voted and are allowed to vote (by showing the edited register online in which people can decide not to be on).

[6]


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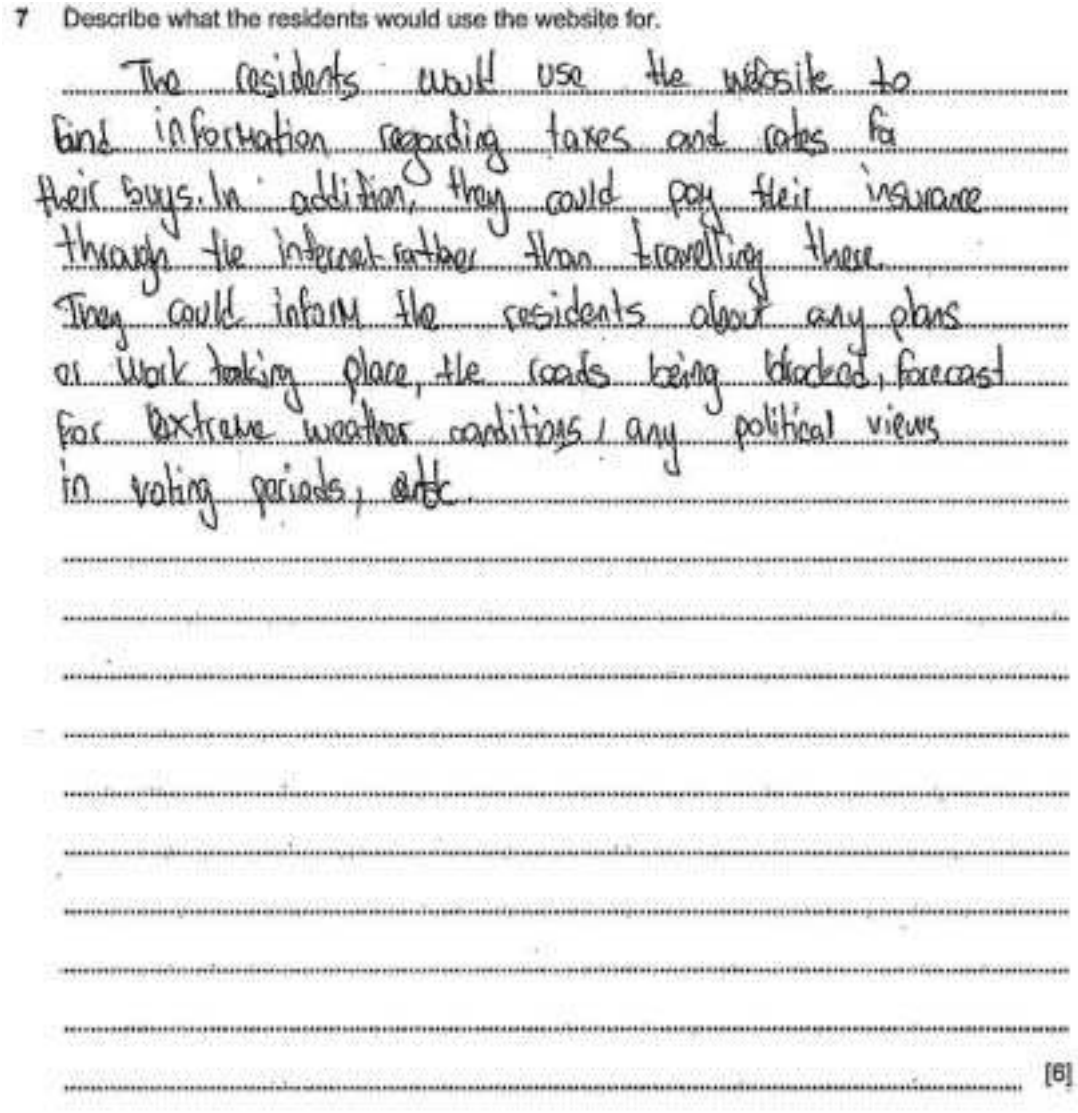
## Examiner comment – grade A

**7** There are many uses that the local residents could make of such a website and candidates were asked to describe six in order to gain full marks. This candidate has described six good uses: information about local events, applying for residency certificates, finding out about grants, paying taxes, researching government aims and applying to be on the electoral register and has thus scored full marks.

**Mark awarded = 6 out of 6**

## Example candidate response – grade C


7 Describe what the residents would use the website for.

The residents would use the website to find information regarding taxes and rates for their buys. In addition, they could pay their insurance through the internet rather than travelling there. They could inform the residents about any plans or work taking place, the roads being blocked, forecast for extreme weather conditions / any political views in voting periods, etc.

[6]

## Examiner comment – grade C

**7** Unfortunately this candidate did not make use of all the available space. Four points have been made and each one is mark-worthy, however the candidate has not supplied sufficient answers to gain any more marks. At this level marks are generally awarded for complete sentences not just individual words or phrases.

**Mark awarded = 4 out of 6**



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## Example candidate response – grade E

7 Describe what the residents would use the website for.

The residents may use it to stay up-to-date with whatever new is going on around them. It is easier for them this ways as they are sitting in their home and checking the website at their own leisure. The residents may use to read and find out about different goverment policies and their mechanisms and criteria e.g taxation, law etc. The residents may use it to look up different laws and policies and the reasoning behind them. New policies and laws can be instantaneously communicated to the residents. They may use the website to find out more about each other therefore helping them to become social.

[6]

## Examiner comment – grade E

**7** Two marks for stating that the website can be used for staying up-to-date and for checking on Government policies, but then the rest of the answer continues to expand on the same themes and does not include any further, different uses that the residents may make of the website. Finding out more about each other is too vague for a mark at this level.

**Mark awarded = 2 out of 6**


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## Scenario 3

A Local Government Authority uses ICT in many ways. One of these is a website to provide the residents with up-to-date information. The authority is concerned about the digital divide.

## Question 8

8 **(a)** Explain how technical developments in ICT are reducing the digital divide among the residents.

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**(b)** Describe how the Local Government Authority could educate residents in order to reduce the digital divide.

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..... [4]

## Mark scheme

8 **(a)** Any **five** points from:
ICT components have fallen in price due to improvements in production
Telecomms cost is also falling
New smaller processors have produced smaller/cheaper PCs
Developments in ICT encourages recycling of older equipment that can be used
Advances in devices enables disabled people to use ICT
Online shopping enables housebound people freedom of choice
More/cheaper Computer based training
Computers provided in public places for people to use
Open source software has improved for users
Electric power provided manually- e.g. windup systems
Broadband is being introduced into more areas/attracting more customers
Improved telecom links to remote areas e.g. more satellites
...more widespread network for mobile phones
Enables information to be more accessible
Mobile phone broadband development [5]

**(b)** Any **four** from:
Provide courses in using computers
Develop CBL courses for self instruction
Provide trainers to go into villages to run courses
Purchase low cost systems for the villages
Prepare written training material for villages
Provide the necessary telecoms hardware for villages
Creating forums for self help [4]


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## Example candidate response – grade A

8 (a) Explain how technical developments in ICT are reducing the digital divide among the residents.

The Internet has expand allowed most people in the world to have access to this type of technology. Reductions in the cost of technology has made it more affordable for everyone to have access to ICT, due to its constant development. Introduction of online shopping and banking has made the elderly and disabled have able to make a fuller life and be more independent. Private technologies oriented towards disabled people, such as head worlds or tracker balls, have made them be able to telework, entertain and communicate themselves through the use of IM for example. [5]

(b) Describe how the Local Government Authority could educate residents in order to reduce the digital divide.

Training sessions at a very low cost or even free could be undertaken in order to show its residents how to use ICT effectively. The local Government could also subsidy some ICT equipement, such as laptops, to make sure that everyone in the area, even the more disadvantaged, have access to technology. ICT programmes could start in all the schools in the area to educate people from a very young age. Programmes for disabled people could also be introduced to make them more independent and allow them to telework. [4]



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## Examiner comment – grade A

**8(a)** The question asks how technical developments are reducing the digital divide. The candidate has written three good explanations, but needed two more to gain full marks. Cost reduction because of developments in production, online shopping enabling the disabled and housebound to participate and the creation of specialised equipment are all very valid points. There are many others listed in the mark scheme such as the advent of windup systems to provide electrical power, wider availability of a mobile phone network etc.

**Mark awarded = 3 out of 5**

**8(b)** Each of the first two sentences in this answer give very good ways in which the Local Government could educate the residents. The last two sentences, however, repeat the first point and do not add anything new to the answer. At this level to gain full marks on this question there need to be four distinct and different ways in which the Local Government could act. We have training courses and subsidised equipment, other possibilities could be self-help forums or provision of telecommunications infrastructure.

**Mark awarded = 2 out of 4**

## Example candidate response – grade C

8 (a) Explain how technical developments in ICT are reducing the digital divide among the residents.

Digital divide may be because of people having computers and internet facility whereas others won't. It might be because some disabled people cannot access the ICT systems as efficiently as others can. These can be overcome by developing new facilities which enable the disabled people to use the computer systems more efficiently like touch screens and tracker balls are introduced. Large bandwidth internet is provided in rural areas. Hospitals and schools have been provided with technical facilities like X-ray machines and computer lab networks. ICU monitors can be provided in rural hospitals. [5]


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(b) Describe how the Local Government Authority could educate residents in order to reduce the digital divide.

CBL or CAL systems can be used which give information on how to use certain ICT technologies and how are they beneficial to the residents. They can be guided for the use of ICT in daily lives and how can they reduce the costs but still take full advantage. They can give examples on how some technologies' advancement has led to lesser complications in daily life and proper use of money for the ease of living. [4]

## Examiner comment – grade C

**8(a)** The first six lines of this answer, whilst perfectly valid statements, have no bearing on the question asked. The question did not ask candidates to explain what the digital divide is, but rather how technology is helping to overcome it. There are two mark-worthy points in the middle of the answer, devices for the disabled and provision of Internet facilities in rural areas, but again the last point about hospitals and schools is not detailed enough to gain credit at this level.

**Mark awarded = 2 out of 5**

**8(b)** The problem here again is one of level. The responses are not detailed enough to gain credit at this level. CBL could indeed be used, but how? And how can people who do not have access to the technologies use CBL or CAL? The candidate has not thought through the scenario and applied it in the answers.

**Mark awarded = 0 out of 4**



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## Example candidate response – grade E

8 (a) Explain how technical developments in ICT are reducing the digital divide among the residents.

The technical developments are helping in reducing the digital divide as the residents are brought up-to-date with all developments, they explore them and find out all about them. They bring them into use and therefore benefit from it. They discuss the new developments between themselves during meetings or in blogs and forums and the gap between them is slowly finished. As all residents can benefit from these developments there is no jealousy or differences between them to cause more divide.

[5]

(b) Describe how the Local Government Authority could educate residents in order to reduce the digital divide.

They could educate them about people in rural areas who are uneducated and distant from them due to the enormous digital divide. They may teach them how digital divide causes problems in the people and ~~[illegible]~~ to stay united and be strong as a country they need to avoid it. This may be done through adverts, pamphlets or brochures.

[4]


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## Examiner comment – unclassified

**8(a)** This answer does not address any technical developments that may be helping to reduce the digital divide and so does not gain any marks.

**Mark awarded = 0 out of 5**

**8(b)** Again the candidate has not offered any suggestions as to how the Government might educate the residents. It says they could do so, but offers no examples of any ways in which it could be done. Hence there is nothing in this answer which deserves a mark.

**Mark awarded = 0 out of 4**

# Scenario 3

A Local Government Authority uses ICT in many ways. One of these is a website to provide the residents with up-to-date information. The authority is concerned about the digital divide.

## Question 9

**9** The Local Government Authority is concerned about anti-social behaviour when using ICT. Give examples of this type of behaviour and describe how they may be prevented. [8]

## Mark scheme

**9** Any **eight** points. Max 5 for bullet points if fail to describe any preventative measures

| problem | prevention |
|---|---|
| unauthorised access to a system | • Not very common due to security in place such as firewall<br>• And encryption will make reading the data even more difficult<br>• Use of non-dictionary passwords<br>• Regularly changing password<br>• Use of access rights to limit users |
| Deliberate sending of malware | • Ensure anti-software is kept up to date |
| Phishing | • Do not open unknown emails<br>• use filtering of emails |
| Pharming | • Advise users of the risk |
| Cyberbullying | • Prevented by education young people |
| Grooming | • Prevented by education young people |
| Spam | • Use of spam filters |

[8]



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## Example candidate response – grade A

9 The Local Government Authority is concerned about anti-social behaviour when using ICT. Give examples of this type of behaviour and describe how they may be prevented.

- Identity theft may occur. This includes the illegal distributing, amending and deletion of data.
- This can be prevented through the use of firewalls.
- Data should be encrypted at all times
- Viruses may be spread online, affecting website viewing.
- Anti-virus software maybe installed.
- Spam messages can be sent to various emails
- Anti-spam software can be used
- Pop-ups can be very annoying to the user and can sometimes mislead the consumer.
- Anti pop up software can be used to combat this problem
- Using key logging software, some hackers may get a hold of usernams and password information
- Anti spyware will prevent the information being obtained unlawfully.
- There is always a chance of cyber bullying; forums and chat rooms can be monitored by administrators at all times

[8]

## Examiner comment – grade A

**9** The question asked for examples of anti-social behaviour and how they may be prevented. Hence there were marks available for identifying the anti-social behaviour and marks for describing how to prevent this behaviour. This candidate has identified many types of antisocial behaviour, but the methods of prevention are sometimes weak. For example, it is not enough to have anti-virus software or anti-spam software installed on a computer. It is necessary that these be updated regularly or they soon become useless. Pop-ups, whilst annoying, are not necessarily anti-social; this depends on the content of the pop-up window.

**Mark awarded = 7 out of 8**


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## Example candidate response – grade C

9 The Local Government Authority is concerned about anti-social behaviour when using ICT. Give examples of this type of behaviour and describe how they may be prevented.

Many online systems have risk of hackers who steal personal data with malicious intents. They can be other bank systems school systems or online shopping systems. People who use online shopping systems have the risk of their credit card details being leaked out and used for improper purposes. Their data can be deleted or manipulated. Sometimes students hack their school systems and access the examination paper and they might even change their grades after the exams have been graded. Encryption techniques should be used by which hackers cannot intercept any information they access unless it's decrypted. The systems should also have firewalls and anti spyware which can prevent key logging issues. Hackers even send spam emails or emails which contain improper content which might even contain viruses. Anti viruses should be installed and updated regularly to avoid such emails. [8]

## Examiner comment – grade C

**9** The first half of this response again bears no relation to to the scenario, the candidate has simply written a lot of general information about computer fraud and so none of this is mark-worthy. Encryption, use of firewalls and spam emails which are mentioned later, and the regular updating of anti-virus software are mark-worthy, but the irrelevant first half of the answer has meant that the opportunity for further marks was lost.

**Mark awarded = 4 out of 8**



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## Example candidate response – grade E

9 The Local Government Authority is concerned about anti-social behaviour when using ICT. Give examples of this type of behaviour and describe how they may be prevented.

Antisocial behaviour may be represented by cyber-bulling, computer fraud, impersonating somebody else etc. People with sufficient skills can gain access to other people's private information through hacking. After gaining access they may edit the information, delete the information to cause inconvenience for the user. If such people gain access to very personal information of an indivisual e.g their marital status or problems and their sexual life, or their past criminal records, they may use this information to blackmail the person by threatening to release it or by releasing the information and creating an embarrassing situation for the person. If a person had a past criminal record but is trying to be a better person now and such information about them is released they may have to be embarrassed between their friends and neighbours. Anticocial use of ICT is prohibited and un-ethical and focusses only on causing inconvenience for a certain [8]
indivisual which is problematic. People may also impersonate somebody to cause embarrassing situations for the real person. Encryption of data, security checks, passwords are a few ways to prevent these.

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## Examiner comment – grade E

**9** There is one mark right at the beginning for cyber-bullying, but no remedy for prevention is given. There is another mark right at the end for encryption, but the section in the middle is all about different ways in which data could be mis-used. This was not what this question asked. The question asked for anti-social behaviour and how it could be prevented, not for several examples of computer fraud.

**Mark awarded = 2 out of 8**


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# Paper 4 – Practical Test

## Question 1

*You are working for RockICT Concert Travel. You are expected to create efficient data handling systems in order to automate a monthly task and integrate the publication of results. All documents published are required to be of a professional standard and suit the business context.*

**1 (a)** You are required to provide evidence of your work, including screen shots at various stages. Each screen shot should clearly show the relevant evidence. Create a document named:

CentreNumber_CandidateNumber_Evidence.rtf

e.g. ZZ999_99_Evidence.rtf

Place your name, Centre number and candidate number in the header of your evidence document.

**(b)** The company holds a monthly prize draw for all customers who have requested or downloaded the latest concert brochure.
The list of customers eligible for the draw is provided in **Draw Entrants.csv**
The full customer list is provided in **Customer Details.csv**
The prizes for the monthly draw are published on the company website at

**http://www.RockICT.net/travel/prizes.html**

You will need to extract the data from the table and save it as **Current Prizes.csv**

**(c)** In a spreadsheet application setup a table as shown below:

| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 1 | Prize Number | Destination | Duration | Entry Number | Customer ID | Surname | Telephone Number | Email |
| 2 | 1 | | | | | | | |
| 3 | 2 | | | | | | | |
| 4 | 3 | | | | | | | |
| 5 | 4 | | | | | | | |
| 6 | 5 | | | | | | | |

In columns B and C enter formulae that will look up the relevant data from the **Current Prizes** file.

**(d)** Enter a formula in cell D2 which generates a random number between 1 and the number of entrants in **Draw Entrants.csv**
Replicate this formula for the other prizes.

**(e)** In columns E, F, G and H enter formulae that look up the details of the winners identified by the **Entry Numbers** in column D.
Save the spreadsheet as **Monthly Winners**

**(f)** Print the complete spreadsheet displaying all of the formulae. Ensure that each formula is fully visible.

**(g)** Copy the complete table and paste the values into a new spreadsheet.
If necessary reformat the table to match the layout required.
Save the spreadsheet as **July Winners**
Print a copy of the table. [25]



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# Mark scheme

| | | | Mark |
|---|---|---|---|
| Task 1 | | | |
| | **Formula View** | Destination – Lookups – Value, File&Range, Vector/index | 3 |
| | Holiday details | Duration – Lookups – Value, File&Range, Vector/index | 3 |
| | | | |
| | Random number | Formula – use of bounded generator e.g. RANDBETWEEN(1,N) | 1 |
| | | Lower limit =1 | 1 |
| | | Upper limit – 249 entered (1) valid formula (2) | 2 |
| | | | |
| | Customer fields | Customer ID – Lookups – Value, File&Range, Vector/index | 3 |
| | | Surname – Lookups – Value, File&Range, Vector/index | 3 |
| | | Telephone number – Lookups – Value, File&Range, Vector/index | 3 |
| | | Email address – Lookups – Value, File&Range, Vector/index | 3 |
| | | | |
| | **Values Printout** | All data visible | 1 |
| | | Labels – Text 100% accurate as given | 1 |
| | | Formatting – as given | 1 |
| | | | [25] |
| Task 2 | **Database** | Primary keys (in July Winners,C.Details,C.Prizes only) | 3 |
| | | Relationships – (between Winners,C.Prizes,C.Details only) | 2 |
| | | No duplication or irrelevant data – (Extra table or repeated fields) | 1 |
| | | | |
| | Selection | Query shown (using only (7) required fields) | 1 |
| | | | |
| | **Certificate Mergefields** | Forename & space | 1 |
| | | Surname | 1 |
| | | Customer id | 1 |
| | | Brochure code & space | 1 |
| | | Space & Destination | 1 |
| | | Duration | 1 |
| | | Date – shown as a field in dd/MM/yy | 1 |
| | | Conditional criteria – shown as mergefield using "insurance" | 1 |
| | | Condition (true/false – unless "text" field in setup) +correct text | 1 |
| | | Full printout showing all mergecodes | 1 |
| | | | |
| | **Cerificate Printout** | 18pt | 1 |
| | All fields | Serif | 1 |
| | | Bold | 1 |
| | | Italic | 1 |
| | Logo | Inserted – in correct place | 1 |
| | | Resized & Aspect ratio maintained | 1 |
| | | All text and borders visible | 1 |
| | | Fits on single page – including post macro printout | 1 |
| | | | [25] |
| Task 3 | Macro | Background set & correct colour | 2 |
| | | Borders (4) Colour set | 4 |
| | | Border Widths (4) set | 4 |
| | | Header set | 1 |
| | | Print instruction set | 1 |
| | | Toolbar/Menu – attempt to assign, in toolbar/menu, appropriate name | 3 |
| | | | [15] |


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| | | | |
|---|---|---|---|
| Task 4 | **Database report** | Title – 100% as given | 1 |
| | | Correct fields & all visible | 7 |
| | | Order of fields as given | 1 |
| | | Field names edited as shown | 7 |
| | | Layout formatted as shown | 6 |
| | | | |
| | **Webpage** | Shown in browser – must be screenshot | 1 |
| | | Correct layout | 2 |
| | | | [25] |
| | | | [90] |



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| | | |
|---|---|---|
| **Setup** | Charges Linked | 2 |
| | Cost formula | 1 |
| | Sub-total formula | 1 |
| | Discount code linked | 3 |
| | Discount formula | 3 |
| | Total formula | 1 |
| | Customer fields lookup | 6 |
| | Hyperlink | 2 |
| | Table saved | 1 |
| | | [20] |
| **Quotes** | Data entry | 4 |
| | Non-blanks filter | 2 |
| | Data linked | 2 |
| | Quote_22.rtf saved | 1 |
| | | |
| | Data amended | 2 |
| | Quote republished | 2 |
| | Quote_22a.rtf saved | 1 |
| | | [14] |
| Update letter | Data amended | 1 |
| | Data linked | 1 |
| | Data source | 1 |
| | Merge fields | 5 |
| | If-then field | 1 |
| | Condition 1 | 1 |
| | Condition 2 | 1 |
| | Updmain.rtf saved | 1 |
| | Valid selection method | 1 |
| | Merge to new document | 1 |
| | Updmerge.rtf saved | 1 |
| | | [15] |
| Address labels | Data source | |
| | Merge fields | 5 |
| | Label propagated | 1 |
| | Labelmain.rtf saved | 1 |
| | Valid selection method | 1 |
| | Merge to new document | 1 |
| | Labelmerge.rtf saved | 1 |
| | | [10] |
| **Menu** | Title | |
| | 4 items | 4 |
| | Suitable text | 2 |
| | Suitable explanations | 4 |
| | Links shown | 4 |
| | Saved | 1 |
| | | [15] |
| **Option1** | Macro written/recorded | 8 |
| AutoOpen | Named AutoOpen | 2 |
| | Autolabels saved | 1 |
| | Menu item added | 2 |
| | Explanatory text | 2 |
| | MillsMenu2 saved | 1 |
| | | [16] |


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| Option 2 | User Guide | |
|---|---|---|
| Introduction 8 marks | Loading | 4 |
| | Selection | 4 |
| | Examples | 4 |
| | Troubleshooting info | 4 |
| | | [16] |
| | Marks awarded for each section | |
| | Full and clear coverage | 4 |
| | Clear coverage, some gaps | 3 |
| | Very brief coverage with gaps/errors | 2 |
| | Minimal coverage, many errors | 1 |
| | | |
| | | [90] |

***Steps (a) – (c) Current Prizes lookups***

## Example candidate response – grade A

| Prize number | Destination | Duration |
|---|---|---|
| 1 | =VLOOKUP(A2,'Current Prizes.csv'!$A$2:$E$6,2) | =VLOOKUP(A2,'Current Prizes.csv'!$A$2:$E$6,3) |
| 2 | =VLOOKUP(A3,'Current Prizes.csv'!$A$2:$E$6,2) | =VLOOKUP(A3,'Current Prizes.csv'!$A$2:$E$6,3) |
| 3 | =VLOOKUP(A4,'Current Prizes.csv'!$A$2:$E$6,2) | =VLOOKUP(A4,'Current Prizes.csv'!$A$2:$E$6,3) |
| 4 | =VLOOKUP(A5,'Current Prizes.csv'!$A$2:$E$6,2) | =VLOOKUP(A5,'Current Prizes.csv'!$A$2:$E$6,3) |
| 5 | =VLOOKUP(A6,'Current Prizes.csv'!$A$2:$E$6,2) | =VLOOKUP(A6,'Current Prizes.csv'!$A$2:$E$6,3) |

## Examiner comment – grade A

The candidate used the correct lookup_values , table_array and row_index_number. In particular the table array excluded the column headings, (A1:E1), showing the candidate selected the data carefully.

## Example candidate response – grade C

| Prize number | Destination | Duration |
|---|---|---|
| 1 | =VLOOKUP(A2,'[Current Prizes.csv]Current Prizes'!$A$1:$E$6,2) | =VLOOKUP(A2,'[Current Prizes.csv]Current Prizes'!$A$1:$E$6,3) |
| 2 | =VLOOKUP(A3,'[Current Prizes.csv]Current Prizes'!$A$1:$E$6,2) | =VLOOKUP(A3,'[Current Prizes.csv]Current Prizes'!$A$1:$E$6,3) |
| 3 | =VLOOKUP(A4,'[Current Prizes.csv]Current Prizes'!$A$1:$E$6,2) | =VLOOKUP(A4,'[Current Prizes.csv]Current Prizes'!$A$1:$E$6,3) |
| 4 | =VLOOKUP(A5,'[Current Prizes.csv]Current Prizes'!$A$1:$E$6,2) | =VLOOKUP(A5,'[Current Prizes.csv]Current Prizes'!$A$1:$E$6,3) |
| 5 | =VLOOKUP(A6,'[Current Prizes.csv]Current Prizes'!$A$1:$E$6,2) | =VLOOKUP(A6,'[Current Prizes.csv]Current Prizes'!$A$1:$E$6,3) |

## Examiner comment – grade C

This candidate selected the whole table and so lost two marks for the table_array parameters.

## Example candidate response – grade E

| Prize number | Destination | Duration |
|---|---|---|
| 1 | =VLOOKUP(A2,Sheet2!A1:E6,2) | =VLOOKUP(A2,Sheet2!A1:E6,3) |
| 2 | =VLOOKUP(A3,Sheet2!A2:E7,2) | =VLOOKUP(A3,Sheet2!A2:E7,3) |
| 3 | =VLOOKUP(A4,Sheet2!A3:E8,2) | =VLOOKUP(A4,Sheet2!A3:E8,3) |
| 4 | =VLOOKUP(A5,Sheet2!A4:E9,2) | =VLOOKUP(A5,Sheet2!A4:E9,3) |
| 5 | =VLOOKUP(A6,Sheet2!A5:E10,2) | =VLOOKUP(A6,Sheet2!A5:E10,3) |

## Examiner comment – grade E

This candidate copied the lookup data to the same workbook. While this solution can produce the correct values, it is not a sensible method for a task that is being designed to be used in subsequent cycles. (In this case monthly). The candidate also failed to select only the relevant part of the table, (A2:E6), and did not use absolute references for the table_array. Only the two marks for the row_index_numbers could be awarded out of the six available.



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***Step (d) Random number generation***

## Example candidate response – grade A

| Entry Number |
|---|
| =RANDBETWEEN(1,COUNT('Draw Entrants.csv'!$A:$A)) |
| =RANDBETWEEN(1,COUNT('Draw Entrants.csv'!$A:$A)) |
| =RANDBETWEEN(1,COUNT('Draw Entrants.csv'!$A:$A)) |
| =RANDBETWEEN(1,COUNT('Draw Entrants.csv'!$A:$A)) |
| =RANDBETWEEN(1,COUNT('Draw Entrants.csv'!$A:$A)) |

## Examiner comment – grade A

This candidate realised that the number of entrants for the next month's draw would be different. A valid solution was therefore to use a COUNT function to determine the upper limit automatically. There was a label implying this in cell C1 of the Draw Entrants file. Ideally the COUNT function could have been used in cell C2 to display the number of entrants. The above is, however, a perfectly acceptable solution

## Example candidate response – grade C

| Entry Number |
|---|
| =RANDBETWEEN(1,249) |
| =RANDBETWEEN(1,249) |
| =RANDBETWEEN(1,249) |
| =RANDBETWEEN(1,249) |
| =RANDBETWEEN(1,249) |

## Examiner comment – grade C

This candidate resorted to manually inspecting the Draw Entrants file to determine the limits of the RANDBETWEEN function and gained three of the four marks available.

## Example candidate response – grade E

| Entry Number |
|---|
| =INT(RAND()*249) |
| =INT(RAND()*249) |
| =INT(RAND()*249) |
| =INT(RAND()*249) |
| =INT(RAND()*249) |

## Examiner comment – grade E

This candidate was awarded one mark for the use of the combination of the INT and RAND functions. The attempt did not meet the required limits of 1 to 249 inclusive so the marks for the upper and lower limits were lost.


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***Steps (e) and (f) Draw Entrants and Customer Details lookups***

## Example candidate response – grade A

## Examiner comment – grade A

This grade A candidate realised that the business scenario requires tasks to be repeatable in subsequent cycles . This being the case, the data in the "Draw Entrants" and "Customer Details" files will change. The candidate recognised this requirement and selected the lookup table_array to reference whole columns (A:J) to accommodate the possibility of new data being appended and data being deleted.

## Example candidate response – grade C

| Customer id | Surname | Telephone Number | Email |
|---|---|---|---|
| =VLOOKUP(D2,'July Draw Entrants.csv'!$A$2:$B$250,2,FALSE) | =VLOOKUP(D2,'Customer Details.csv'!$A$2:$C$3001,3,FALSE) | =VLOOKUP(D2,'Customer Details.csv'!$A$2:$H$3001,8,FALSE) | =VLOOKUP(D2,'Customer Details.csv'!$A$2:$G$3001,7,FALSE) |
| =VLOOKUP(D3,'July Draw Entrants.csv'!$A$2:$B$250,2,FALSE) | =VLOOKUP(D3,'Customer Details.csv'!$A$2:$C$3001,3,FALSE) | =VLOOKUP(D3,'Customer Details.csv'!$A$2:$H$3001,8,FALSE) | =VLOOKUP(D3,'Customer Details.csv'!$A$2:$G$3001,7,FALSE) |
| =VLOOKUP(D4,'July Draw Entrants.csv'!$A$2:$B$250,2,FALSE) | =VLOOKUP(D4,'Customer Details.csv'!$A$2:$C$3001,3,FALSE) | =VLOOKUP(D4,'Customer Details.csv'!$A$2:$H$3001,8,FALSE) | =VLOOKUP(D4,'Customer Details.csv'!$A$2:$G$3001,7,FALSE) |
| =VLOOKUP(D5,'July Draw Entrants.csv'!$A$2:$B$250,2,FALSE) | =VLOOKUP(D5,'Customer Details.csv'!$A$2:$C$3001,3,FALSE) | =VLOOKUP(D5,'Customer Details.csv'!$A$2:$H$3001,8,FALSE) | =VLOOKUP(D5,'Customer Details.csv'!$A$2:$G$3001,7,FALSE) |
| =VLOOKUP(D6,'July Draw Entrants.csv'!$A$2:$B$250,2,FALSE) | =VLOOKUP(D6,'Customer Details.csv'!$A$2:$C$3001,3,FALSE) | =VLOOKUP(D6,'Customer Details.csv'!$A$2:$H$3001,8,FALSE) | =VLOOKUP(D6,'Customer Details.csv'!$A$2:$G$3001,7,FALSE) |

## Examiner comment – grade C

This candidate's selection for the lookup formula only included the current data and so lost the marks for the correct table_array in each field.

## Example candidate response – grade E

| Customer id | Surname | Telephone Number | Email |
|---|---|---|---|
| =VLOOKUP(D2,'July Draw Entrants.csv'!A2:B250,2) | =VLOOKUP(D2,'Customer Details.csv'!A2:C3001, | =VLOOKUP(D2,'Customer Details.csv'!A2:H3001,( | =VLOOKUP(D2,'Customer Details.csv'!A2:G3001, |
| =VLOOKUP(D3,'July Draw Entrants.csv'!A3:B251,2) | =VLOOKUP(D3,'Customer Details.csv'!A3:C3002, | =VLOOKUP(D3,'Customer Details.csv'!A3:H3002,( | =VLOOKUP(D3,'Customer Details.csv'!A3:G3002, |
| =VLOOKUP(D4,'July Draw Entrants.csv'!A4:B252,2) | =VLOOKUP(D4,'Customer Details.csv'!A4:C3003, | =VLOOKUP(D4,'Customer Details.csv'!A4:H3003,( | =VLOOKUP(D4,'Customer Details.csv'!A4:G3003, |
| =VLOOKUP(D5,'July Draw Entrants.csv'!A5:B253,2) | =VLOOKUP(D5,'Customer Details.csv'!A5:C3004, | =VLOOKUP(D5,'Customer Details.csv'!A5:H3004,( | =VLOOKUP(D5,'Customer Details.csv'!A5:G3004, |
| =VLOOKUP(D6,'July Draw Entrants.csv'!A6:B254,2) | =VLOOKUP(D6,'Customer Details.csv'!A6:C3005, | =VLOOKUP(D6,'Customer Details.csv'!A6:H3005,( | =VLOOKUP(D6,'Customer Details.csv'!A6:G3005, |

## Examiner comment – grade E

This candidate did not use absolute referencing for the lookup table_array and also did not include the range_lookup parameter (FALSE). There is no reason to suppose the the lookup_values need always be in numerical order as data is amended so the candidate lost two marks for each field.



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***Step (g) A values printout***

## Example candidate response – grade A

| Prize Number | Destination | Duration | Entry Number | Customer ID | Surname | Telephone Number | Email |
|---|---|---|---|---|---|---|---|
| 1 | New York | 14 | 194 | 2372 | Ball | 078 03067079 | Sienna.D.Ball@dodgit.com |
| 2 | Istanbul | 7 | 150 | 1839 | Sanderson | 07007629485 | Mollie.M.Sanderson@mailinator.com |
| 3 | Athens | 5 | 99 | 1353 | Doherty | 07837916643 | Dylan.J.Doherty@trashymail.com |
| 4 | Rome | 2 | 168 | 2079 | Leach | 07049373833 | Charlie.M.Leach@trashymail.com |
| 5 | Paris | 2 | 47 | 634 | Preston | 07712995802 | Demi.M.Preston@pookmail.com |

## Examiner comment – grade A

In displaying the values for printing this grade A candidate was awarded full marks. The candidate was careful to display the table exactly as shown in the question paper and in particular the match the format of the row and column labels.

## Example candidate response – grade C

| Prize number | Destination | Duration | Entry Number | Customer id | Surname | Telephone Number | Email |
|---|---|---|---|---|---|---|---|
| 1 | New York | 14 | 184 | 2243 | Scott | 077 3282 6578 | Charlie.L.Scott@trashymail.com |
| 2 | Istanbul | 7 | 105 | 1422 | Whitehouse | 078 6485 8510 | Jack.B.Whitehouse@trashymail.com |
| 3 | Athens | 5 | 221 | 2678 | Curtis | 070 4693 4683 | Thomas.J.Curtis@trashymail.com |
| 4 | Rome | 2 | 192 | 2365 | Jackson | 070 7243 8035 | Kayleigh.A.Jackson@pookmail.com |
| 5 | Paris | 2 | 52 | 731 | Holt | 070 7039 0674 | Archie.V.Holt@trashymail.com |
| | | | | | | | |

## Examiner comment – grade C

This candidate lost the marks for the correct formatting (alignment and wrapping) and for the accuracy of the labels (Customer ID was specified in the question paper).

## Example candidate response – grade E

| Prize number | Destination | Duration | Entry Number | Customer i | Surname | Telephone Number | Email |
|---|---|---|---|---|---|---|---|
| 1 | New York | 14 | 184 | 2243 | Scott | 077 3282 6578 | Charlie.L.Scott@trashymail.com |
| 2 | Istanbul | 7 | 105 | 1422 | Whitehouse | 078 6485 8510 | Jack.B.Whitehouse@trashymail.c |
| 3 | Athens | 5 | 221 | 2678 | Curtis | 070 4693 4683 | Thomas.J.Curtis@trashymail.com |
| 4 | Rome | 2 | 192 | 2365 | Jackson | 070 7243 8035 | Kayleigh.A.Jackson@pookmail.cc |
| 5 | Paris | 2 | 52 | 731 | Holt | 070 7039 0674 | Archie.V.Holt@trashymail.com |
| | | | | | | | |

## Examiner comment – grade E

This candidate lost all three marks for the values printout since not all of the data was visible, the accuracy of the labels could not be verified and the formatting was incorrect.


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# Question 2

**2 (a)** The company prints prize certificates for the winners using mail merge.
You will use **Draw Certificates.rtf** as a template for the merge document.

The data for the mergefields exists in multiple tables so you are required to create a database as a source for generating the certificates.

Ensure that your solution includes only the fields required, has appropriate relationships and has no unnecessary duplication of data.

Include details of the tables, the relationships and any queries created in your evidence document.

**(b)** Insert the mergefields where specified in the template.

For winners with a current insurance policy, the Bonus Prize conditional field should display **Free upgrade to your travel insurance!**

For those winners without a current insurance policy, the Bonus Prize conditional field should display **30% off our award winning travel insurance.**

Format all inserted data as an 18pt serif font with bold and italic effect.

Copy the RockICT logo from the RockICT.net website and insert it where indicated. Resize the logo to a height of 3 cm. Make sure that the aspect ratio is maintained and that all text and borders are visible.

Print a copy of the merge document showing the mergefield codes.

Perform the mail merge to create the new document.

Ensure the certificates will be printed on a single A4 page.

Save the new document as **July Certificates.rtf**

Print the document. [25]



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# Mark scheme

| | | | Mark |
|---|---|---|---|
| Task 1 | | | |
| | **Formula View** | Destination – Lookups – Value, File&Range, Vector/index | 3 |
| | Holiday details | Duration – Lookups – Value, File&Range, Vector/index | 3 |
| | | | |
| | Random number | Formula – use of bounded generator e.g. RANDBETWEEN(1,N) | 1 |
| | | Lower limit =1 | 1 |
| | | Upper limit – 249 entered (1) valid formula (2) | 2 |
| | | | |
| | Customer fields | Customer ID – Lookups – Value, File&Range, Vector/index | 3 |
| | | Surname – Lookups – Value, File&Range, Vector/index | 3 |
| | | Telephone number – Lookups – Value, File&Range, Vector/index | 3 |
| | | Email address – Lookups – Value, File&Range, Vector/index | 3 |
| | | | |
| | **Values Printout** | All data visible | 1 |
| | | Labels – Text 100% accurate as given | 1 |
| | | Formatting – as given | 1 |
| | | | [25] |
| Task 2 | **Database** | Primary keys (in July Winners,C.Details,C.Prizes only) | 3 |
| | | Relationships – (between Winners,C.Prizes,C.Details only) | 2 |
| | | No duplication or irrelevant data – (Extra table or repeated fields) | 1 |
| | | | |
| | Selection | Query shown (using only (7) required fields) | 1 |
| | | | |
| | **Certificate Mergefields** | Forename & space | 1 |
| | | Surname | 1 |
| | | Customer id | 1 |
| | | Brochure code & space | 1 |
| | | Space & Destination | 1 |
| | | Duration | 1 |
| | | Date – shown as a field in dd/MM/yy | 1 |
| | | Conditional criteria – shown as mergefield using "insurance" | 1 |
| | | Condition (true/false – unless "text" field in setup) +correct text | 1 |
| | | Full printout showing all mergecodes | 1 |
| | | | |
| | **Cerificate Printout** | 18pt | 1 |
| | All fields | Serif | 1 |
| | | Bold | 1 |
| | | Italic | 1 |
| | Logo | Inserted – in correct place | 1 |
| | | Resized & Aspect ratio maintained | 1 |
| | | All text and borders visible | 1 |
| | | Fits on single page – including post macro printout | 1 |
| | | | [25] |
| Task 3 | Macro | Background set & correct colour | 2 |
| | | Borders (4) Colour set | 4 |
| | | Border Widths (4) set | 4 |
| | | Header set | 1 |
| | | Print instruction set | 1 |
| | | Toolbar/Menu – attempt to assign, in toolbar/menu, appropriate name | 3 |
| | | | [15] |


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| | | | |
|---|---|---|---|
| Task 4 | **Database report** | Title – 100% as given | 1 |
| | | Correct fields & all visible | 7 |
| | | Order of fields as given | 1 |
| | | Field names edited as shown | 7 |
| | | Layout formatted as shown | 6 |
| | | | |
| | **Webpage** | Shown in browser – must be screenshot | 1 |
| | | Correct layout | 2 |
| | | | [25] |
| | | | [90] |



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| | | |
|---|---|---|
| **Setup** | Charges Linked | 2 |
| | Cost formula | 1 |
| | Sub-total formula | 1 |
| | Discount code linked | 3 |
| | Discount formula | 3 |
| | Total formula | 1 |
| | Customer fields lookup | 6 |
| | Hyperlink | 2 |
| | Table saved | 1 |
| | | [20] |
| **Quotes** | Data entry | 4 |
| | Non-blanks filter | 2 |
| | Data linked | 2 |
| | Quote_22.rtf saved | 1 |
| | | |
| | Data amended | 2 |
| | Quote republished | 2 |
| | Quote_22a.rtf saved | 1 |
| | | [14] |
| Update letter | Data amended | 1 |
| | Data linked | 1 |
| | Data source | 1 |
| | Merge fields | 5 |
| | If-then field | 1 |
| | Condition 1 | 1 |
| | Condition 2 | 1 |
| | Updmain.rtf saved | 1 |
| | Valid selection method | 1 |
| | Merge to new document | 1 |
| | Updmerge.rtf saved | 1 |
| | | [15] |
| Address labels | Data source | |
| | Merge fields | 5 |
| | Label propagated | 1 |
| | Labelmain.rtf saved | 1 |
| | Valid selection method | 1 |
| | Merge to new document | 1 |
| | Labelmerge.rtf saved | 1 |
| | | [10] |
| **Menu** | Title | |
| | 4 items | 4 |
| | Suitable text | 2 |
| | Suitable explanations | 4 |
| | Links shown | 4 |
| | Saved | 1 |
| | | [15] |
| **Option1** | Macro written/recorded | 8 |
| AutoOpen | Named AutoOpen | 2 |
| | Autolabels saved | 1 |
| | Menu item added | 2 |
| | Explanatory text | 2 |
| | MillsMenu2 saved | 1 |
| | | [16] |


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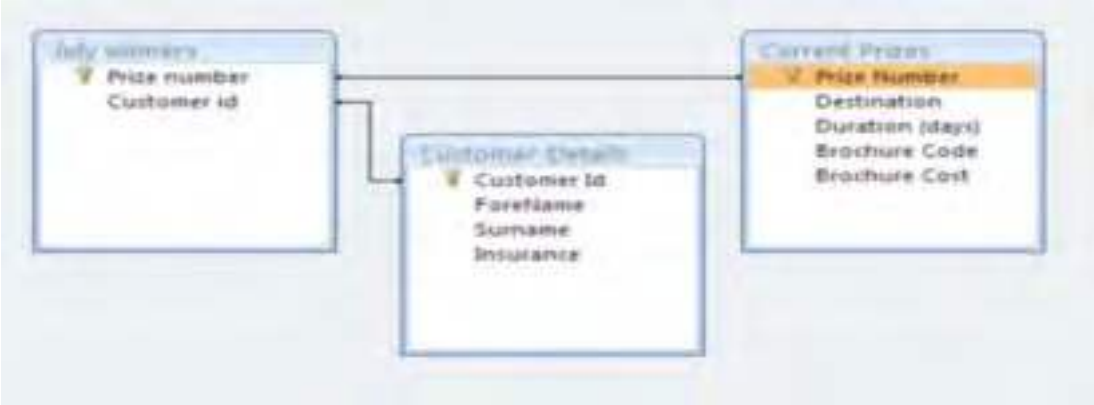
| Option 2 | User Guide | |
|---|---|---|
| Introduction 8 marks | Loading | 4 |
| | Selection | 4 |
| | Examples | 4 |
| | Troubleshooting info | 4 |
| | | [16] |
| | Marks awarded for each section | |
| | Full and clear coverage | 4 |
| | Clear coverage, some gaps | 3 |
| | Very brief coverage with gaps/errors | 2 |
| | Minimal coverage, many errors | 1 |
| | | |
| | | [90] |

***Step (a) (i) Set up the database***

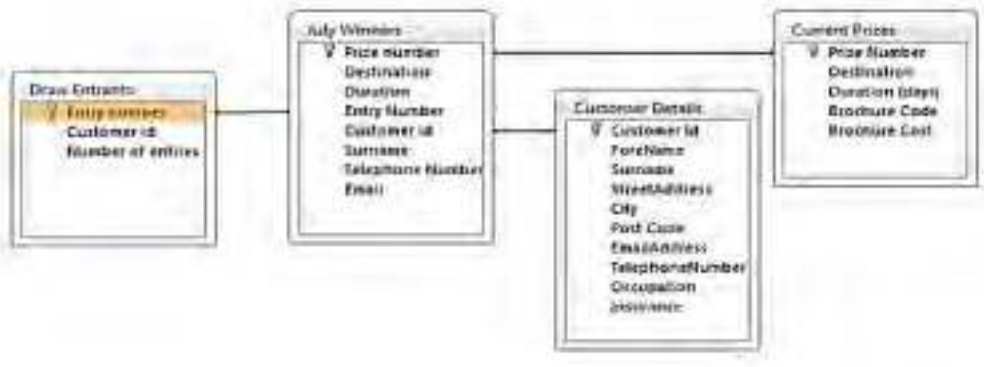
## Example candidate response – grade A




## Examiner comment – grade A

This grade A candidate appreciated that the question paper prompted candidates to realise that the database should contain only the fields required for the certificates. The correct fields were used as Primary keys and suitable relationships were established. All six marks were awarded.

## Example candidate response – grade C




## Examiner comment – grade C

This candidate imported all the data and lost one mark for including unnecessary data.



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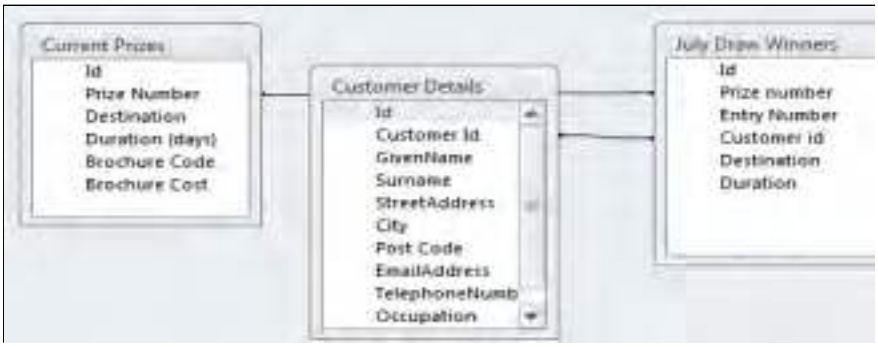
## Example candidate response – grade E

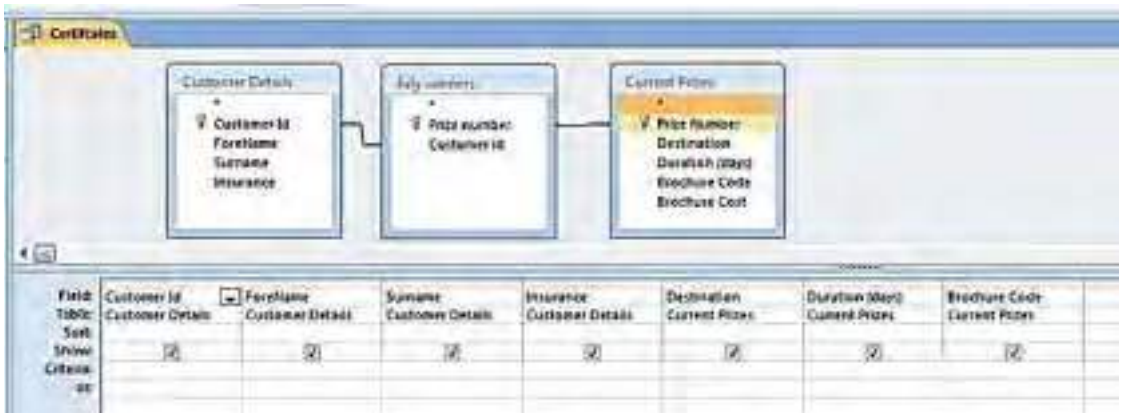



## Examiner comment – grade E

This candidate was awarded the two marks for establishing relationships but lost four marks for not using primary keys and duplicating data in the tables.

***Step (a) (ii) Select data for the mail merge***

## Example candidate response – grade A




## Examiner comment – grade A

This candidate realised that data for the mail merge could be gained from simple query and that the query should only provide the essential data and include no unnecessary fields.

## Example candidate response – grade C (and below)

## Examiner comment – grade C (and below)

Candidates who did not carefully choose the fields pertinent to the query lost the mark for selecting the correct data.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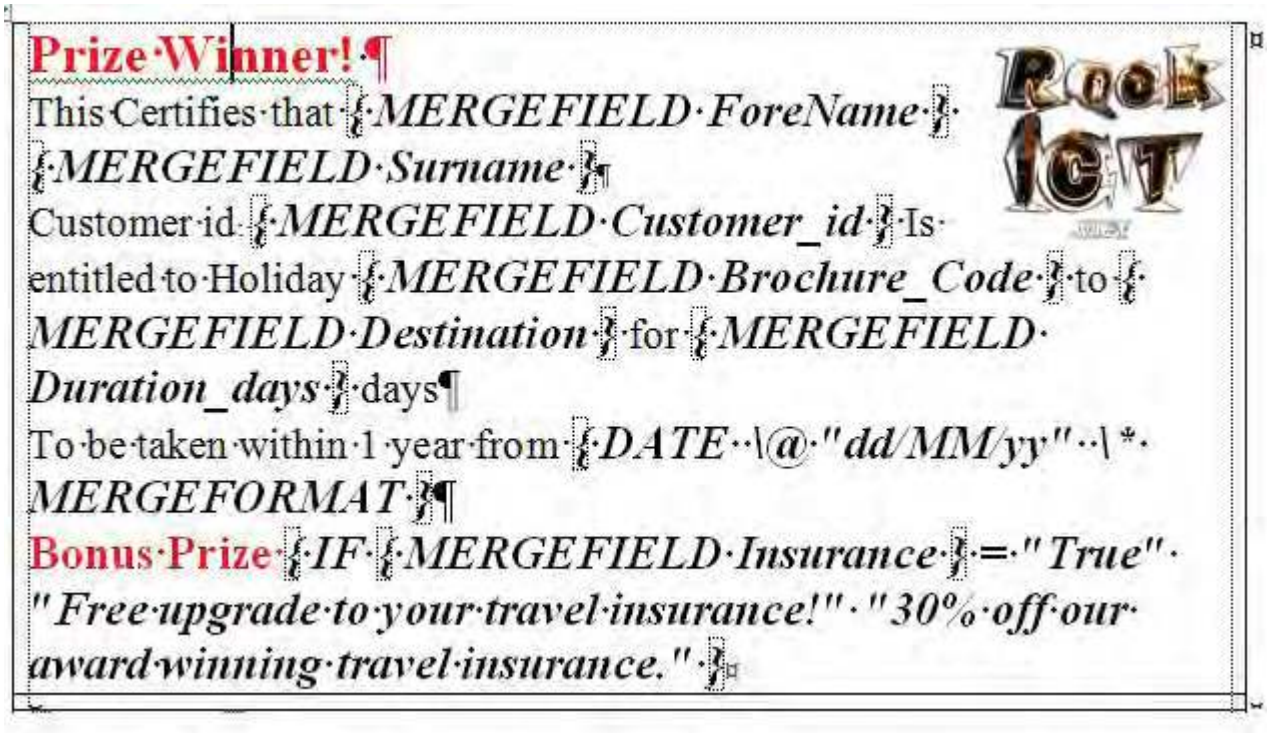
***Step (b) (i) Insert the mergefields and logo in the template document***

## Example candidate response – grade A




## Examiner comment – grade A

This candidate inserted the correct mergefields and followed the instructions to format the inserted data as an 18pt serif font with bold and italic effect. The candidate also provided a printout with all the mergefields were visible.  The candidate was awarded all 10 marks for this stage.



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***Step (b) (ii) – Print the certificates***

Prize Winner!
This Certifies that *Sienna Ball*
Customer id *2372*
Is entitled to Holiday *LL/NYO/op* to *New York*
for *14* days
To be taken within 1 year from *18/11/2010*
Bonus Prize *30% off our award winning travel insurance.*

Prize Winner!
This Certifies that *Mollie Sanderson*
Customer id *1839*
Is entitled to Holiday *LL/IST/op* to *Istanbul*
for *7* days
To be taken within 1 year from *18/11/2010*
Bonus Prize *Free upgrade to your travel insurance!*

Prize Winner!
This Certifies that *Dylan Doherty*
Customer id *1353*
Is entitled to Holiday *ll/ATH/echo* to *Athens*
for *5* days
To be taken within 1 year from *18/11/2010*
Bonus Prize *Free upgrade to your travel insurance!*

Prize Winner!
This Certifies that *Charlie Leach*
Customer id *2079*
Is entitled to Holiday *LL/ROM/cb* to *Rome*
for *2* days
To be taken within 1 year from *18/11/2010*
Bonus Prize *Free upgrade to your travel insurance!*

Prize Winner!
This Certifies that *Demi Preston*
Customer id *634*
Is entitled to Holiday *ll/PAR/cb* to *Paris*
for *2* days
To be taken within 1 year from *18/11/2010*
Bonus Prize *Free upgrade to your travel insurance!*

Prize Winner!
This Certifies that *Sienna Ball*
Customer id *2372*
Is entitled to Holiday *LL/NYO/op* to *New York*
for *14* days
To be taken within 1 year from *18/11/10*
Bonus Prize *30% off our award winning travel insurance.*

Prize Winner!
This Certifies that *Mollie Sanderson*
Customer id *1839*
Is entitled to Holiday *LL/IST/op* to *Istanbul*
for *7* days
To be taken within 1 year from *18/11/10*
Bonus Prize *Free upgrade to your travel insurance!*

Prize Winner!
This Certifies that *Dylan Doherty*
Customer id *1353*
Is entitled to Holiday *ll/ATH/ech* to *Athens*
for *5* days
To be taken within 1 year from *18/11/10*
Bonus Prize *Free upgrade to your travel insurance!*

Prize Winner!
This Certifies that *Charlie Leach*
Customer id *2079*
Is entitled to Holiday *LL/ROM/cb* to *Rome*
for *2* days
To be taken within 1 year from *18/11/10*
Bonus Prize *Free upgrade to your travel insurance!*

Prize Winner!
This Certifies that *Demi Preston*
Customer id *634*
Is entitled to Holiday *ll/PAR/cb* to *Paris*
for *2* days
To be taken within 1 year from *18/11/10*
Bonus Prize *Free upgrade to your travel insurance!*

## Examiner comment – grade A

This candidate adjusted the margins and merged the certificate to fit on a single page successfully. In particular care was taken to ensure the certificates still fitted to a single page after the formatting applied by the macro in Task 3. At this stage however, despite correctly inserting of the logo in the previous step, the candidate lost two marks because the logo was not displayed on the final version of the certificates.

## Example candidate response – grade C

Prize Winner!
This Certifies that { MERGEFIELD ForeName } { MERGEFIELD Surname }
Customer id { MERGEFIELD Customer_id } Is entitled to Holiday { MERGEFIELD Brochure_Code } to { MERGEFIELD Destination } for { MERGEFIELD Duration_days } days
To be taken within 1 year from { DATE \@ "dd/MM/yyyy" * MERGEFORMAT }
Bonus Prize { IF { MERGEFIELD Insurance } = y "Free upgrade to your travel insurance." "30% off our award winning travel insurance." }


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## Examiner comment – grade C

This candidate lost marks by providing a screenshot instead of a print out, not spacing the fields correctly and not using the date format specified in the template.

## Example candidate response – grade E

Prize Winner!
This Certifies that *Rosie Stanley*
Customerid *1086* is entitled to Holiday *LL/NYO/ap*
to *New York* for *14* days
To be taken within 1 year from *18/11/2011*
Bonus Prize *30% of if you take out our award winning travel insurance.*

Prize Winner!
This Certifies that *Evan Power*
Customerid *1965* is entitled to Holiday *LL/IST/ap*
to *Istanbul* for *7* days
To be taken within 1 year from *18/11/2011*
Bonus Prize *30% of if you take out our award winning travel insurance.*

Prize Winner!
This Certifies that *Laura Coleman*
Customerid *2399* is entitled to Holiday *II/ATH/ecb*
to *Athens* for *5* days
To be taken within 1 year from *18/11/2011*
Bonus Prize *30% of if you take out our award winning travel insurance.*

Prize Winner!
This Certifies that *Jude Lowe*
Customerid *2431* is entitled to Holiday
*LL/ROM/cb* to *Rome* for *2* days
To be taken within 1 year from *18/11/2011*
Bonus Prize *30% of if you take out our award winning travel insurance.*

Prize Winner!
This Certifies that *Luke Ingram*
Customerid *1143* is entitled to Holiday *II/PAR/cb*
to *Paris* for *2* days
To be taken within 1 year from *18/11/2011*

## Examiner comment – grade E

This candidate lost marks for:

- Failing to fit all the certificates on one page.
- Incorrect spacing of the destination mergefield
- Using the wrong date format
- Incorrect conditional field results.

It was quite unlikely (but not impossible) that the conditional field (Bonus Prize) results would be all the same. Candidates could quickly validate their results by inspection of the data.

Errors in the conditional field results usually occurred when the data type used in the **Current Insurance** field in the Customer Details table in the database did not match the criterion used by the candidate in the mergefield. For example if the **Current Insurance** was set as Boolean in the database and the candidate set the criterion as text.



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# Question 3

3 You are now required to automate the reformatting of the Certificates.

Create a macro or procedure to:

- set the background colour of each certificate to yellow
- set the border colour of each certificate to blue
- set the line width of each border to 3pt
- add your name, Centre number and candidate number to the header of the document
- print the document.

Assign the macro or procedure to a toolbar or menu item of your word processing application.

Include evidence of the macro or procedure in your evidence document and provide screen shots of your toolbar or menu item.

Run the macro to print the certificates. [15]

***Step (a) Create a macro***

## Example candidate response – grade A

```
Sub Reformat()

'Reformatting certificates Macro

'Set Colour of certificates
  Selection.WholeStory
  With Selection.Tables(1)
    With .Shading
      .Texture = wdTextureNone
      .ForegroundPatternColor = wdColorAutomatic
      .BackgroundPatternColor = wdColorYellow
    End With
```

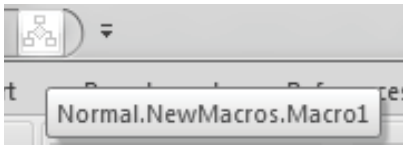
## Examiner comment – grade A

This candidate recorded a macro to carry out the specified reformatting, and also edited and annotated the code. This was not, however, a requirement in this instance.

(Only part of macro shown.)

Evidence of the assignment of the macro to the toolbar was provided by screenshots of the procedure and the result.

## Example candidate response – grade C





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## Examiner comment – grade C

At A Level it is reasonable to expect candidates to work with an understanding of the business context and the need to create systems for others to use. This candidate did not record the macro with a meaningful name and lost a mark. Very few candidates working a grade E level attempted this task.

# Question 4

**4 (a)** You are now required to publish the results of the draw as a webpage.

Prepare a database report named **July Winners**

Display the fields: *Prize Number*, *ForeName*, *Surname*, *City*, *Destination*, *Duration* and *Brochure Cost* in that order.

You are required to edit the column labels and format the report as shown.

Display the text **days** beside each duration.

July Winners

| Prize Number | Name | From | Destination | For | Worth |
|---|---|---|---|---|---|
| 1 | | | | days | |
| 2 | | | | days | |
| 3 | | | | days | |
| 4 | | | | days | |
| 5 | | | | days | |

Print the report.

**(b)** Publish the report as a webpage and include a screenshot of the webpage displayed in your browser in your evidence document. [25]

***Step (a) Create a database report***

## Example candidate response – grade A

July Winners

| Prize Number | Name | From | Destination | For | Worth |
|---|---|---|---|---|---|
| 1 | Sienna Ball | BURWELL | New York | 14 days | €2,175.00 |
| 2 | Mollie Sanderson | BIGGAR | Istanbul | 7 days | €1,500.00 |
| 3 | Dylan Doherty | HEPWORTH | Athens | 5 days | €950.00 |
| 4 | Charlie Leach | CHERITON CROSS | Rome | 2 days | €450.00 |
| 5 | Demi Preston | CWMANN | Paris | 2 days | €425.00 |

## Examiner comment – grade A

In the example above, the submission matches the requirements shown in the question paper exactly and was awarded full marks



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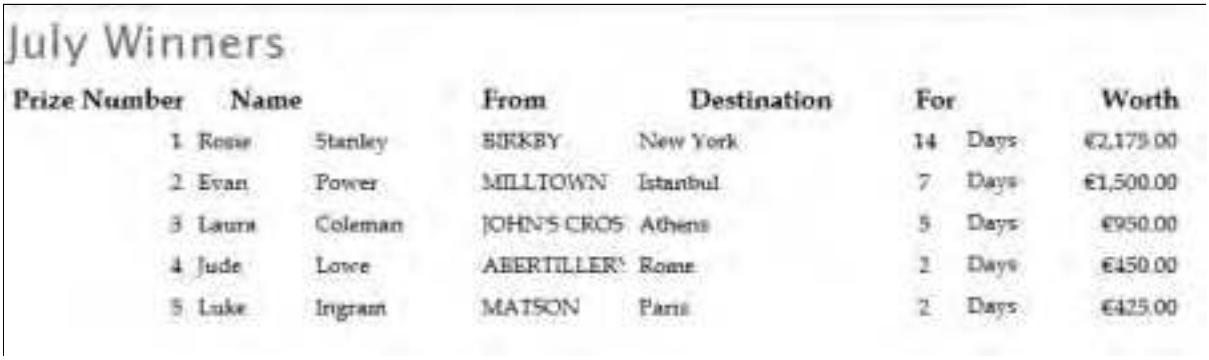
## Example candidate response – grade C



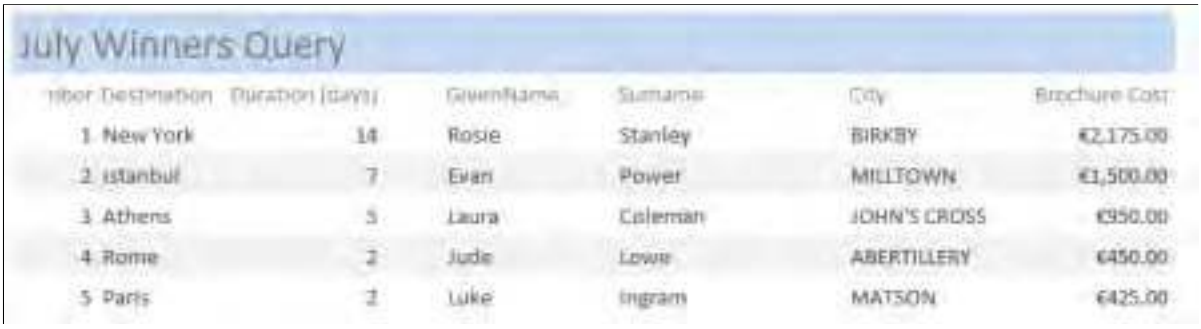
July Winners

| Prize Number | Name | | From | Destination | For | | Worth |
|---|---|---|---|---|---|---|---|
| 1 | Rosie | Stanley | BIRKBY | New York | 14 | Days | €2,175.00 |
| 2 | Evan | Power | MILLTOWN | Istanbul | 7 | Days | €1,500.00 |
| 3 | Laura | Coleman | JOHN'S CROS | Athens | 5 | Days | €950.00 |
| 4 | Jude | Lowe | ABERTILLERY | Rome | 2 | Days | €450.00 |
| 5 | Luke | Ingram | MATSON | Paris | 2 | Days | €425.00 |

## Examiner comment – grade C

This candidate did not set the correct alignments for three fields, adjusted the field widths so that all information is displayed and has not inserted the "days" label as specified. Five marks have been lost.

## Example candidate response – grade E



July Winners Query

| ...ber | Destination | Duration (days) | GivenName | Surname | City | Brochure Cost |
|---|---|---|---|---|---|---|
| 1 | New York | 14 | Rosie | Stanley | BIRKBY | €2,175.00 |
| 2 | Istanbul | 7 | Evan | Power | MILLTOWN | €1,500.00 |
| 3 | Athens | 5 | Laura | Coleman | JOHN'S CROSS | €950.00 |
| 4 | Rome | 2 | Jude | Lowe | ABERTILLERY | €450.00 |
| 5 | Paris | 2 | Luke | Ingram | MATSON | €425.00 |

## Examiner comment – grade E

This candidate gained the marks for including only the correct fields in the report but lost the marks for ensuring all the fields were in the correct order and all the data and labels were visible. Six of the seven marks for editing the column labels and including the "days" text were also lost. Of the marks for formatting, only those for the Surname, City (From) and Brochure Cost(Worth) could be awarded.

***Step (b) Publish the report to a webpage***

## Example candidate response – grade A

Current Prizes

file:///C:/Use

July Winners

| Prize Number | Name | From | Destination | For | Worth |
|---|---|---|---|---|---|
| 1 | Rosie Stanley | BIRKBY | New York | 14 days | €2,175.00 |
| 2 | Evan Power | MILLTOWN | Istanbul | 7 days | €1,500.00 |
| 3 | Laura Coleman | JOHN'S CROSS | Athens | 5 days | €950.00 |
| 4 | Jude Lowe | ABERTILLERY | Rome | 2 days | €450.00 |
| 5 | Luke Ingram | MATSON | Paris | 2 days | €425.00 |

## Examiner comment – grade A

This candidate successfully published the report and provided a screenshot of the report displayed in a browser as required. All three marks were awarded.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## Example candidate response – grade C

July Winners

| Prize | Name | From | Destination | For | Worth |
|---|---|---|---|---|---|
| 1 | RosieStanley | BIRKRY | New York | 14days | €2,175.00 |
| 2 | EvanPower | MILLTOWN | Istanbul | 7days | €1,500.00 |
| 3 | LauraColeman | JOHN'S CROSS | Athens | 5days | €950.00 |
| 4 | JudeLowe | ABERTILLERY | Rome | 2days | €450.00 |
| 5 | LukeIngram | MATSON | Paris | 2days | €425.00 |

## Examiner comment – grade C

Some mis-formatting due to the export was evident in the submissions of candidates at all levels. The more able candidates provided evidence of attempts to overcome these problems. This candidate lost one mark for not attempting to correct the missing field label.

## Examiner comment – grade E

Some candidates provided a printout from the browser instead. This was not satisfactory since there was no evidence of the contents of the address bar and thus no conclusive evidence that the report was displayed as a webpage.



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