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Cambridge **TECHNICALS LEVEL 3**

IT

Combined feedback on the June 2017 exam paper (including selected exemplar candidate answers and commentary)

Unit 2 – Global information
Version 1

Cambridge **TECHNICALS**

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CONTENTS

INTRODUCTION

This resource brings together the questions from the June 2017 examined unit (Unit 2), the marking guidance, the examiners comments and the exemplar answers into one place for easy reference.

We have also included exemplar candidate answers with commentary for Questions 5, 6b and 7b.

The marking guidance and the examiner's comments are taken from the Report to Centre for this question paper.

The Question Paper, Mark Scheme and the Report to Centre are available from:

https://interchange.ocr.org.uk/Modules/PastPapers/Pages/PastPapers.aspx?menuindex=97&menuid=250

GENERAL EXAMINER COMMENTS ON THE PAPER

The June 2017 exam series was the second sitting of the Cambridge Technicals in IT Unit 2 examination. It was noted that many candidates demonstrated subject knowledge gaps in relation to the unit content. Centres should ensure that candidates are familiar with all areas of the unit content prior to being entered for the external examination.

The correlation between content, context and command words also appeared to be limited. Candidates should be aware of the differing command words, e.g. identify, explain, discuss, and the demands that each of these words require. Candidates should also be familiar with the concept that questions may have a specific focus. It is this focus which should be considered by candidates when composing their responses to questions.

In this unit, the pre-release case study issued provides the context for Section A of the external examination. Many candidates appeared to be unfamiliar with the context of the case study, which was 'Progress BikeSafe'. This apparent lack of familiarity limited candidate's access to many of the questions in Section A of the external examination where the questions are directly linked to this case study.

The case study also includes some research prompts for candidates. These prompts should not be ignored as the knowledge gained through completing the research will enhance accessibility to the questions in Section A.

Section B of the external examination does not require candidates to link their responses to the case study. The instruction 'You do not need the case study to answer these questions' is clearly visible at the start of section B. It was, however, noted that there was evidence of knowledge gaps from the candidates' responses in this section.

There are many resources available which can be used during the teaching of this unit. The textbook should not be relied on to provide candidates with a full and complete knowledge base for this unit.

Resources which might help address the examiner comments:

From the link below, you'll find 'The OCR guide to examinations' (along with many other skills guides)
http://www.ocr.org.uk/i-want-to/skills-guides/

Command verbs definitions
http://www.ocr.org.uk/Images/273311-command-verbs-definitions.pdf

PRE-RELEASE MATERIAL

Organisational profile

Introduction

Progress BikeSafe is a driving school which specialises in teaching people to ride motorbikes. The school is based in South Lakeland and has learners who come from all over The Lake District.

The school provides theory lessons to enable their learners to pass the theory component of the motorbike licence test. In addition, the driving school also provides practical lessons to develop the learners' competence on riding a motorbike. The practical lessons enable them to pass the skills based components of the motorbike licence test.

Once the motorbike licence test has been passed, *Progress BikeSafe* can provide lessons in advanced riding skills such as safe riding on rural lanes and motorways.

Services

The main services provided by *Progress BikeSafe* are:
- theory lessons;
- basic motorbike practical lessons;
- advanced skills practical lessons;
- advice and guidance on the equipment needed for riding a motorbike, for example helmets and clothing.

Progress BikeSafe is able to hire motorbikes to their learners to complete the Compulsory Basic Training (CBT) and each of the practical modules. The engine size of the motorbike will depend on the previous driving and riding history of the learner but can only be 125cc, 395cc or 595cc.

To ride a motorbike requires the successful passing of the CBT. *Progress BikeSafe* offers this training as a 1 day course. Following this training, learners have to pass the theory part of the test.

The theory test may have already been completed if the learner has been driving a car. This prior achievement can be used to gain a motorbike licence.

When the theory test has been successfully completed, a 2 module practical test must be taken. Both modules must be passed before a motorbike licence can be issued to the learner. Module 1 is an off-road practical test, whilst the focus of module 2 is on-road riding.

Module 1 must have been successfully completed before a learner can take the module 2 test. If a learner fails module 1 then they must wait 3 working days before taking the module test again. If module 2 is failed then the learner must wait for 10 working days.

Learner records

The school has approximately 500 learners each year. The learners' progress through the licence process varies with some learners having to take further lessons to enable them to resit one of the practical skills modules.

A learner may also have to undertake a course of practical skills lessons if, for example, they have lost their licence due to dangerous riding or through fixed penalty points going on their licence. *Progress BikeSafe* is also part of the nationwide speed awareness initiative where riders have to take a course following them being caught doing excessive speeds by the police.

The database records data on:
- confidential details for each learner, for example contact details;
- the progress of each learner through the licensing process;
- learners undertaking advanced skills riding;
- learners undertaking the speed awareness course.

Fig.1 shows an excerpt from the learner progress database table, showing some complete records. The actual database table contains all the data about every learner from when *Progress BikeSafe* began operating as a business in 2014. *Progress BikeSafe* has incorporated validation routines into the database, such as drop down lists, to minimise data entry errors.

Staffing

Progress BikeSafe employs office staff who carry out administration procedures, including updating the database and dealing with enquiries from learners. They also schedule courses and book theory and practical tests on behalf of learners.

Some of the riding trainers work on a part-time basis, for example, the staff who train learners on the advanced skills riding courses. At the moment all communication with part-time staff is completed by phone or email. The communication includes confirmation of dates, times of courses and the names of learners who will be attending the course.

Progress BikeSafe is considering implementing an intranet to enable staff to access learner and course details.

Appendix

Excerpt from the learner progress database table

LearnerID	BikeHire	EngineSizecc	CBT	Theory	Module1	DatePassed1	Module2	DatePassed2	AdvancedSkills
1	☑	395	☑	☑	☑	07/01/2016	☐		
2	☐		☑	☐	☐		☐		
3	☑	595	☑	☑	☑	09/06/2016	☑	02/07/2016	MW
4	☑	125	☑	☐	☐		☐		

Fig. 1

To prepare for the examination, you should research the following themes:

- How different types of information access and storage devices can be used in *Progress BikeSafe*.
- Different types of www.technology networks and the characteristics that make them suitable for *Progress BikeSafe* including how email communication can be used.
- How, and why, different information styles are used in a database.
- The legislation relevant to the storage of data and the actions required to comply with the legislation.
- Different types of logical protection methods and how these can be used by *Progress BikeSafe*.

Section A

Section A

This section relates to the case study on Progress BikeSafe.

1   The learner records database includes different information styles.

(a) (i)   Identify the information style of the EngineSizecc field in the learner progress database table, see **(Fig.1)**.

....   • Numerical / number / integer   .... **[1]**

Mark Scheme Guidance

For 1 mark.

Not real – engine sizes do not have decimals.

(ii)   Explain why this information style has been used.

- Engine sizes are whole numbers (1)
- Validation can be set (1) to only accept numbers (1)
- A dropdown list (1) can be used to minimise data entry errors (1)
- Any other valid suggestion

[3]

Mark Scheme Guidance

Points marking approach.
Accept reasons why other field / data types have not been used.

(b)   Identify **one** field in the learner progress database table which is the Boolean information type.

.... **[1]**

Mark Scheme Guidance

For 1 mark..

Examiner comments

This section of the external examination was directly linked to the case study, Progress BikeSafe.

The focus of this question was on the information styles used within the learner progress databases used in Progress BikeSafe. An excerpt from this database had been provided in the pre-release materials. The question directly related to bullet point 3 in the research points in the case study.

Part a(i) of the question required candidates to identify the information style used for the EngineSizecc field of the database. Most candidates were able to correctly identify this as being of the numerical / number data type. Part (ii) of this question then required candidates to explain

why this information style had been used. Many candidates were able to provide some detail about this choice of information styles but the explanations were, on the whole, limited to the fact that engine sizes are measured in cc's, which are whole numbers. Few candidates were able to then provide further explanations, such as a drop-down list has been used for this field which will reduce data entry errors.

Part (b) of the question required candidate to identify one field in the database which was of the Boolean information style. Many candidates were able to correctly identify one of the fields.

---

2 Progress BikeSafe is concerned about the security of the data held on the learner records database.

Explain how tiered levels of access can be used to maintain the security of the database.

- The actions that can be carried out by users (1) can be limited (1)
- The actions are based on the username of the user (1)
- Some users / instructors can only read data (1) this will stop edits being made by lots of people (1)
- Higher grade staff / managers (1) will be able to read and edit data (1)
- This provides an audit trail (1) and limits access to data (1)
- Access permissions can be used (1) to restrict user access / control of data (1)
- Access rights can be set as read only (1) or read/write (edit) data (1).
- Any other valid suggestion

[4]

Mark Scheme Guidance

Points marking approach.

Examiner comments

This question focussed on the use of tiered levels of access and how this could be used to maintain the security of the database. The question linked to bullet point 5 of the research points. The majority of the responses to this question were very vague, not relating to the case study. Many candidates responded with a focus on the learners having access to the database. In the case study, the groups of people who have access to the database were defined. Candidates must ensure when answering questions in Section A that the responses directly link to the case study. However, most candidates were able to access 2 of the 4 marks allocated to the question by providing generalist responses such as 'people high in *Progress BikeSafe* would have more access'. To access all marks allocated for this question candidates needed to provide specific examples from the case study.

3*   Progress BikeSafe holds learner details in its database and has to comply with the Data Protection Act (DPA).

Discuss the actions that should be taken by Progress BikeSafe to comply with the Data Protection Act (DPA).

Indicative content

- send copy of data held to learners, at regular intervals so that they can check it for accuracy and update it

- put security measures in place so that the learners personal data is protected against e.g. people phoning in to Progress BikeSafe would have to answer security questions. unauthorised/unlawful processing / accidental loss/damage/destruction

- request only the necessary information relevant to courses required so that the data collected is adequate, relevant and not excessive for the purpose

- remove a learners data from the system if they ask so that data is not kept longer than necessary

- provide details of the data controller to learners so that they can write to request access to the data stored about them

- include questions about direct marketing on forms completed by learners so that learners can opt out if they wish

- staff training on what they can and cannot do with the data (e.g. must not pass it on to a third party without express permission of the owner of the data)

- Any other valid suggestion

[10]

Mark Scheme Guidance

Levels of response marking approach

7 - 10 marks	Candidate has shown a detailed level of understanding by discussing more than one action that could be taken to comply with the DPA. Relevant examples will be used to support discussion and ideas will be expressed clearly and fluently. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.*
4 – 6 marks	Candidate has shown a good level of understanding by explaining at least one action that could be taken to comply with the DPA. Some examples will be used to support explanations which may not be relevant and may at times detract from fluency of narrative. At the bottom of the mark band the candidate may have described a single action. *There is a line of reasoning presented with some structure. The information presented is in the most part relevant and supported by some evidence.*

1 – 3 marks	Has identified points relevant to the actions that could be taken.
	Limited use of examples to accompany description and ideas will be poorly expressed.
	At the bottom of the mark band as single action may have been identified with an example.
	The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.
0 marks	Nothing worthy of credit.

Examiner comments

This question was marked using a banded response method. Candidates were awarded marks based on the level of detail included in their response, and the application of their response to *Progress BikeSafe*. The question also incorporated the quality of the response in terms of correct use of technical terms and the coherent use reasoning. This is denoted by the use of a * next to the question number with candidates being informed of this in the rubric on the front of the examination paper.

This question linked to bullet point 4 in the research points in the case study.

The focus of the question was on the actions that *Progress BikeSafe* needed to take to comply with the Data Protection Act (DPA). No credit was gained by candidates simply providing the eight principles of the DAP, but these could be used to further explain the actions that had to be taken to comply with them.

Many candidates were able to provide one action that could be taken and the most popular action was that of security. This strategy enabled candidates to be awarded a mark in the middle mark band. There appeared to be a lack of understanding about the application of the defined action(s) to the case study. Where candidates failed to provide relevant examples, the accessibility of the higher marks within the middle mark band was negated.

To reach the highest mark band, candidates needed to provide more than one action. The defined actions needed to be applied to Progress BikeSafe with examples provided.

4   The learner records database is backed up to a CD at the end of every working day.

Identify **one** other portable storage device which could be used. Justify your choice.

Device ....

....

Justification ....

Device
- Portable / external hard drive (1st)
- Memory / USB Stick (1st)
- Portable SSD (1st)

Justification
- Large amounts of data (1) can be saved (1)
- Devices can be used to store backup (1) and taken off premises / stored off-site (1)
- Portability (1) means is a fire / example of other event (1) happens the backups are safe (1) so data can be restored (1)
- Any other valid suggestion

[5]

Mark Scheme Guidance

The device must be correct to enable marks for the justification to be awarded.

DNA USB on its own.

Hard drive / SSD must be qualified as portable / external

1 mark for method, up to 4 for justification

Examiner comments

The focus of this question was on an alternative storage device that could be used to back-up the database. Candidates had to identify a suitable device, justifying their choice. This question linked to part of bullet point 1 in the research points in the case study.

If candidates failed to identify a suitable storage device then they were unable to access the marks allocated for the justification.

Many candidates provided vague responses relating to the storage device. For example, USB and hard drive were too vague. A USB is not a storage device but the mark would have been awarded for USB Memory Stick / Flash Drive. If candidates simply answered Hard Drive, then this, again, is too vague. A hard drive could be in a computer / laptop.

Those candidates who did identify a suitable storage device were then able to access many of the marks allocated for the justification. Acceptable justification points could include being able to be taken off site, more robust than a CD or can be rewritten.

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OCR LEVEL 3 CAMBRIDGE TECHNICALS IN IT · UNIT 2 COMBINED FEEDBACK

5* Progress BikeSafe sends emails to its part-time staff to inform them of dates of future courses.

Discuss the benefits and limitations of using this communication method.

Indicative content

Benefits

- Emails are delivered extremely fast when compared to traditional post.
- Emails can be sent 24 hours a day, 365 days a year.
- Webmail means emails can be sent and received from any device, anywhere in the world, that has an internet connection.
- Cheaper than using traditional post.
- Emails can be sent to one person or a group.
- An audit trail can be kept.
- Attachments can be sent e.g. application forms to attend a course.
- Any other valid suggestion

Limitations

- The recipient needs access to the Internet to receive email.
- Viruses are easily spread via email attachments.
- Phishing.
- No guarantee the mail will be read until the user logs on and checks their email.
- Possible incompatibility between system for opening attachments.

[10]

Mark Scheme Guidance

Levels of response marking approach

7 - 10 marks	Candidate has shown a detailed level of understanding by discussing more than one benefit **and** limitation of using email. Relevant examples will be used to support discussion and ideas will be expressed clearly and fluently. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.*
4 – 6 marks	Candidate has shown a good level of understanding by explaining at least one benefit and/ or limitation of using email. Some examples will be used to support discussion which may not be relevant and may at times detract from fluency of narrative. At the bottom of the mark band the candidate may have described a single benefit or limitation to using email. *There is a line of reasoning presented with some structure. The information presented is in the most part relevant and supported by some evidence.*
1 – 3 marks	Candidate has identified points relevant to the use of email. Limited use of examples to accompany description and ideas will be poorly expressed. At the bottom of the mark band a single benefit / limitation may be identified with an example. *The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.*
0 marks	Nothing worthy of credit.

Examiner comments

This question was marked using a banded response method. Candidates were awarded marks based on the level of detail included in their response, and the application of their response to *Progress BikeSafe*. The question also incorporated the quality of the response in terms of correct use of technical terms and the coherent use reasoning. This is denoted by the use of a * next to the question number with candidates being informed of this in the rubric on the front of the examination paper.

This question linked to part of bullet point 2 in the research points in the case study.

The focus of this question was on the benefits and limitations of using e-mail to communicate with the part-time members of staff. To be awarded a mark in the middle mark band candidates needed to provide at least one benefit and/or limitation. Examples also needed to be provided which related to the case study, *Progress BikeSafe*.

Many candidates were able to describe benefits of using email. These included being able to access email on a variety of devices, emails can be stored to be accessed at a later date, attachments can be sent and group emails can be sent by *Progress BikeSafe*. Acceptable limitations provided by candidates included the fact that internet access is required to access emails, emails may not be checked on a regular basis and emails could be directed into a Spam/Junk folder.

The level of detail provided was the main discriminator between the middle and top mark band. To be considered for a mark in the highest mark band candidates needed to have considered more than one benefit and more than one limitation.

In addition to these requirements for the highest mark band candidates needed to provide relevant and specific examples relating to *Progress BikeSafe*. For example, candidates who had considered the location of *Progress BikeSafe*, South Lakeland, were able to provide examples relating to the intermittent and patchy Internet access that can affect a rural location with a challenging terrain for any broadband equipment.

Exemplar candidate work

The question was marked using a banded response mark scheme where marks were included for the structure of the answer, how the ideas are expressed, and the inclusion of examples. Where the quality of the response is to be considered when the script is being marked is denoted by a * next to the question number. Candidates are informed of this on the front cover of the question paper in the section labelled 'Information'.

Question 5 – Low level answer

> 5* Progress BikeSafe sends emails to its part-time staff to inform them of dates of future courses.
>
> Discuss the benefits and limitations of using this communication method.
>
> Emails are a very quick method of communication, and are sent using an active internet connection. The cost of sending an email is free, in comparison to text written forms od communication like letters.
>
> They are sent el
>
> A limitation includes

Commentary

The candidate has provided an answer that briefly describes 1 advantage of Progress BikeSafe using email to inform the part-time staff of future course dates. The answer briefly refers to the cost of emails being lower than using letters. The candidate has started a sentence relating to the limitations but has failed to finish this. A low level answer, of which this is an example, comprises points relevant to the use of email. The answer is unstructured and basic with limited evidence of the use of relevant examples.

To become a medium level answer, the candidate needed to expand the very brief description of cost and provide further explanation of this. In addition to this, the candidate needed to provide an explanation of at least one limitation of using email. To confidently reach a medium level answer examples, taken from the Progress BikeSafe case study should be included.

Exemplar candidate work

Question 5 – Medium level answer

5* Progress BikeSafe sends emails to its part-time staff to inform them of dates of future courses.

Discuss the benefits and limitations of using this communication method.

The first benefit is that emailing the staff is a very fast method of communication, which can be sent and recieved within a matter of minutes. However, a disadvantage to using emails is that if someone were to hack them, then they could find out all of the part time staff's dates and times for when they need to be at work.

Secondly, another benefit to using emails as a communication method is that its free, it doesn't cost any of the employers or employees any money to send and recieve an email this is why it's another benefit. This way if your phone has no texts or calls left this is why email is a good last resort or option. However, the limitations to this is also that if your internet is down and you have no data on your phone the how will the staff recieve the message and reply to it.

Thirdly the next benefit would be that it is very easy to use, and everyone should have a email so they all know how it works making it easy for the staff to reply.

However, the limitation to this is that the emails may not always tell you when you have a new message. This will mean that the message/ email could be waiting for a response for a while. This may lead to bad impressions from the company onto the staff. This is why it could be a issue having emails sent to you because, not everyone remembers to check their emails. In Conclusion, there are a few benefits and limitations of which why sending an email can be good or bad, the main point in my opinion is those emails being hacked and found out from someone else. [10]

Commentary

The candidate has provided an answer that includes several benefits and limitations of the use of email by Progress BikeSafe. Whilst it appears that the requirements for a high level answer have been met, on further reading it can be seen that the benefits and limitations are limited in scope.

For example, the 2nd benefit refers to the cost of sending an email being free so it doesn't cost the employers or employees any money. This is a misconception by the candidate. There is a cost to email in that an ISP has to be paid for accessing the service. This benefit needed to be correct and a relevant example provided to be worthy of consideration for credit. A further benefit is detailed relating to email being easy to use. At this level the concepts of easier, cheaper or quicker must be quantified and qualified to be worthy of consideration of credit

The candidate has made some attempt to provide limitations to the use of email, but, as already stated these are also limited in scope. For example, the candidate states that 'emails may not always tell you when you have a new message'. The candidate then goes on to provide a brief description of how the sender could be waiting for a response. These two points provide a brief explanation of one of the limitations of using email but the level of detail is missing. The candidate has failed to provide an example related to Progress BikeSafe, for example, part-time staff may not be aware of a course date as they did not check their emails and so could have made other plans.

To be considered a high level answer, the candidate needed to discuss the benefits and limitations of the use of email and provide relevant examples from the case study to support the discussion.

Exemplar candidate work

Question 5 – High level answer

5* Progress BikeSafe sends emails to its part-time staff to inform them of dates of future courses.

Discuss the benefits and limitations of using this communication method.

A significant benefit of using email communication is that it is free: it will not cost progress BikeSafe anything to send emails to their staff, and so it is an effective way of communicating. In addition, with email communication, progress BikeSafe have the ability to set up a mailing list which allows the company to email all of their part-time staff at once instead of individually, saving admin staff time and effort. Furthermore, with the advancement of wireless technologies, it is common for a person to have an internet connection almost anywhere so email communication is a good method for progress BikeSafe to use. As they can guarantee that every staff member will have an email account — if not, it is incredibly easy to set an email account up and use it. However, if a staff member lives in a remote location without a personal internet connection (3G) or wifi, it may be difficult for progress BikeSafe to communicate via email as the staff member needs an internet connection to access their inbox. There are further limitations to progress BikeSafe using email communication, as emails send over an internet connection it is common that they can be intercepted by hackers or spyware applications — progress BikeSafe would need to add a layer of protection to their emails, for example encryption to ensure that data cannot be stolen or accessed

whilst it is in transit. It may cost money for progress Bike safe to encrypt/protect their emails in transit as most methods of protection require software, which costs money to purchase and update. In addition, some email servers restrict the amount of emails that can be contained in a person's inbox so if a staff member inbox is full, they may not receive the email. Furthermore, the email may be routed to a staff member's 'junk' folder rather than their main inbox which may result in employees not viewing the email and so not receiving their dates of future courses

Commentary

The candidate has provided an answer that includes several benefits and limitations of the use of email by Progress BikeSafe. A good attempt has been made at discussing these with the answer being expressed clearly and fluently. The majority of the examples provided in the answer are relevant being applied to Progress BikeSafe and are substantiated.

To be considered a full mark high level answer, all examples needed to be in context of Progress BikeSafe. For example, one limitation discussed in the answer relates to the need to encrypt the data whilst it is in transit. The candidate needed to provide an example of the data that would need to be encrypted and why this should happen.

One of the requirements for a high level answer is that the candidate answer is a discussion. One of the requirements of a discussion is that a conclusion is formulated. Candidates working at this level should be encouraged to provide a conclusion to a question where the keyword is discuss. Candidates should also be encouraged to check their answer for spelling, punctuation and grammar and to ensure that all technical terms are used correctly.

6 Progress BikeSafe is considering using an intranet to enable the part-time staff to access their course details.

(a) Describe what is meant by an intranet.

- A private network / VPN (1)
- An internet within the internet (1)
- Only accessible to staff of *Progress BikeSafe*/people with access credentials (1)
- Any other valid suggestion

[2]

Mark Scheme Guidance

Points marking approach.

(b) Identify and describe **two** characteristics of an intranet which would make it suitable for part-time staff to access their course details.

1 ....

- Speed (1st) documents can be placed on intranet (1) and accessed without having to wait for hard copies to arrive (1)
- Security (1st) learners details will be kept safe (1) as only people with access credentials can access documents
- Access levels (1st) staff can have access to what they need (1) for example part time staff can only access documents relevant to them (1)
- Accessibility (1st) staff can access the documents from a variety of devices (1) at any time / from anywhere (1)
- Any other valid suggestion

2 ....

[6]

Mark Scheme Guidance

Points marking approach.

Examiner comments

The focus of this question was on the intranet, which *Progress BikeSafe* are considering implementing. The responses to this question demonstrated knowledge gaps relating to this area of the specification contents. The question linked to part of bullet point 2 in the research points in the case study.

Most candidates were able to provide a description of an intranet but the responses to part (b) of the question were lacking. Part (b) of the question related to the characteristics of an intranet which would make it suitable for the part-time staff to access the course details. Candidates needed to identify the characteristic before they were able to access the marks allocated for the description. Acceptable characteristics include, for example, speed, security, and accessibility.

Exemplar candidate work

The focus of this question was on the characteristics of an intranet which made it suitable for part time staff to access their course details.

Question 6b – Low level answer

> **(b)** Identify and describe **two** characteristics of an intranet which would make it suitable for part-time staff to access their course details.
>
> 1 private, which means that no one will be able to access it/unless you are in the organisation. they would protect her data from outsiders, or unauthorised people as they cannot access private it as it if private.
>
> 2 It is closed access which means that you would b need a password and a user name to access it. this would protect her data from os unathorised users/people.

Commentary

This candidate has provided, in answer 1, an implied point relating to the fact that an intranet would keep the course details private from unauthorised access. This has been taken as relating to the characteristic of security. Little, if any, further details relating to this characteristic has been provided by the candidate. Answer 2 is a repeat of answer 1, relating to the same characteristic of security.

To improve this answer to a medium level answer the candidate needed to initially identify two characteristics of an intranet. These could include security, speed, access levels and accessibility. To further improve the answer, some description of the identified characteristics would be needed. For example, this candidate could have provided further description of the security characteristic by saying that this would ensure that the learners details will be kept safe.

Exemplar candidate work

Question 6b – Medium level answer

(b) Identify and describe **two** characteristics of an intranet which would make it suitable for part-time staff to access their course details.

> 1. Most intranets require an ID/ username and password to gain access to. ~~This would decrease any~~ This will allow part-time staff to access there course details whenever they needed to.
>
> 2. All is needed for access is internet. This way part-time staff can check up on details wherever they are.

Commentary

The candidate, in answer 1, has provided an implied identification of two characteristics of an intranet.

The candidate states that a user name and password would allow the part time staff to access their course details, this has been taken as the security characteristic. The sentence then goes on to state 'wherever they are'. This has been taken as the accessibility characteristic. As the question asks for identification of two characteristics answer 2 would not be credited with marks.

However, looking at answer 2 this does not provide any indication of a characteristic of an intranet. The fact that internet access is needed is not a characteristic of an intranet.

To improve this answer to a high level answer the candidate needed to initially clearly identify two characteristics of an intranet. These characteristics then needed to be described with the focus being on the part-time staff accessing their course details. For example, if the identified characteristic was accessibility then the description could cover such points as the part time staff can access the course details from a range of devices and the details can be accessed at any time.

Exemplar candidate work

Question 6b – High level answer

> (b) Identify and describe **two** characteristics of an intranet which would make it suitable for part-time staff to access their course details.
>
> 1 Communication between staff members within the intranet is a feature – it is suitable for part-time members to use as they can view theirs, and other staff members, course details and discuss this within the system
>
> 2 Private closed access system – only authorised people within the organisation can view the details so it adds a level of security that there is no risk of unauthorised staff or customers accessing course details and other private information held within it
>
> [6]

Commentary

The candidate has, in answer 1, provided an implied answer relating to the characteristic of speed. Whilst the characteristic has not been explicitly stated the candidate has provided some description relating to part-time staff being able to access their course details through the intranet.

Answer 2 provides an identification of the characteristic, security. However, the description provided does appear to be muddled. The candidate has provided a description that relates to unauthorised people not being able to access the course details and that only authorised people can see them. This description is basically the same point but written from two different viewpoints.

This answer could be enhanced by the candidate explicitly stating two characteristics of an intranet. Each of these characteristics should then be described. The description should focus on the part-time staff accessing their course details.

Section B

You do not need the case study to answer these questions.

7   An on-line clothing retailer is carrying out market research. Qualitative data can be collected during market research.

(a) (i)   Using an example, describe what is meant by qualitative data.

- Data that can be observed (1) but not measured (1)
- Deals with description / text / written form (1)
- Example e.g. colour of clothes (1)
- Any other valid suggestion

[3]

Mark Scheme Guidance

Points marking approach.

Example must relate to a clothing retailer.

(ii)   Identify **two** items of non-sensitive data which could be collected during the market research.

1 ....

2 ....

- Name (1)
- Gender (1)
- Age (1)
- Preference for types of clothing (1)
- Any other valid suggestion

[2]

Mark Scheme Guidance

Points marking approach.

(b) The market research will be carried out using an online survey.

Discuss how the importance of collecting good quality information should be considered when creating a market research survey.

Indicative content
- If quality of information is not good then the information collected will be worthless
- Good quality information needs to be collected to enable retailer to analyses the collected information
- Information collected should be:
  - Reliable
  - Valid
  - Relevant
  - Accurate
- Survey needs to be targeted at a range of demographic categories
- Range of types of questions, e.g. opinions etc.

[7]

Mark Scheme Guidance

Levels of response marking approach

7 - 10 marks	Candidate has shown a detailed level of understanding discussing the factors involved with collecting information in detail.
	Relevant examples will be used to support discussion and ideas will be expressed fluently.
4 – 6 marks	Candidate has shown a good level of understanding explaining the factors involved with collecting information, although the explanation may be one-sided.
	Some example(s) will be used to support explanations which may not be relevant and may at times detract from the fluency of the narrative.
	At the bottom of the mark band the candidate may have described a single factor involved.
1 – 3 marks	Candidate has identified points relevant to the factors involved with the collection of information.
	Limited use of examples to accompany description and ideas will be poorly expressed.
	At the bottom of the mark band, a single point may be identified with an example.
0 marks	Nothing worthy of credit.

Exemplar candidate work

The question was marked using a banded response mark scheme where marks were included for how the ideas are expressed, and the inclusion of examples.

The focus of this question is on how the importance of collecting good quality information needs to be considered when creating a market research survey.

Question 7b – Low level answer

> **(b)** The market research will be carried out using an online survey.
>
> Discuss how the importance of collecting good quality information should be considered when creating a market research survey.
>
> It is important for the business to collect good quality information the reason being because by them collecting good quality it will help them produce good graphs and tables and the benefit from this is that it will make predication and result more effectively as the information will be relevent. The benefit for the business is that their result will be more accurate.

Commentary

This candidate has provided a generic answer which provides little, if any, reference to the on-line clothing retailer or the fact that the survey will be completed on-line.

Most of the answer provided by the candidate does not answer the question as the focus is on creating 'good graphs and tables'. However, the end of this sentence and the rest of the answer do demonstrate some understanding of how the collected good quality information could be used. These points are an identification of the information needing to be accurate and relevant. It is the inclusion of these briefly expressed, identified, points that make this a low level answer.

To improve the answer to a medium level answer the candidate needed to include some indication of the need for the collected information to be reliable, valid and unbiased. The candidate also needed to provide examples, relating to the on-line clothing retailer. In addition to these, the answer should demonstrate some fluency of thoughts within the answer.

Exemplar candidate work

Question 7b – Medium level answer

(b) The market research will be carried out using an online survey.

Discuss how the importance of collecting good quality information should be considered when creating a market research survey.

It is important that good quality information is collected actively that this research will be used to identify trends or patterns of data, which may be used to aid future decision making. The decisions may be crucial to a business and cannot rely on poor quality information, as otherwise poor investments and choices may be made at the benefit of a company.* This needs to be considered when a market research survey is being created, as the survey needs to contain a number of closed questions so that answers are as accurate and as easy to analyse as possible. Furthermore, including open/long answer questions in the survey will decrease the chance of recieving reliable information of a good quality.

* The collecting of good quality information is also important as it may determine whether a lot of money is being spent/invested into a company or market – money may be wasted on the basis of poor information otherwise.

[7]

Good quality information is crucial because it is key to the running of some companies; an analysis company would reflect badly if they published wrong data held on the basis of poor quality information

Commentary

The initial part of this answer provides some description relating to how the on-line retailer could use the collected information. The description does, however, lack any specific examples. Whilst the candidate has described that the information can be used to spot trends and patterns, and aid future decision making / investment there is little, if any, application or evidence of examples.

The candidate has then gone on to consider the types of questions that could be asked, open or closed, and attempts to explain why different question types should be used. The explanation provided by the candidate does appear to demonstrate some knowledge relating to the factors to be considered.

To improve the answer to a high level answer the candidate needed to provide a range of factors with relevant and specific examples. The factors to be considered could include the collection of reliable, valid, relevant, accurate and unbiased information. Another factor to be discussed could relate to the target audience in that a range of demographics should be considered.

In addition, a high level answer should be expressed in a fluent way with all examples relating to the on-line clothing retailer.

Candidate style answer

Question 7b – High level answer

Collecting good quality information is the most important part when creating a market research survey. Good quality information must be reliable, accurate, up-to-date and relevant to the topic and helpful.

The information collected from the market research survey should match these five things. For example, if the information is not reliable it is a risk for the online retailer to rely on that information only. Reliable information and data can provide the retailer with information about what is doing well within the clothing market.

Another example is if the information is not relevant, it is completely useless to the retailer therefore making the market research survey a waste of time or worse money. Poor information could influence the business into making the wrong choices about the clothes to sell which could have a negative effect on the business.

Commentary

The candidate has provided a high level answer but there are areas which can be improved.

The answer initially identifies five factors that need to be considered when creating a market research survey. The candidate has then gone onto provide some discussion about two of these factors – reliability and relevance. There is some attempt to provide examples but these are limited in scope. For example, rather than saying that the reliable information could show what is doing well, a specific example, such as colours, would enhance the answer. However, some attempt has been made to discuss what the implications are of not collecting reliable or relevant information. Unfortunately, the answer relating to relevance is all focussed on not collecting relevant information.

To improve the answer the candidate needed to provide further discussion relating to why collecting relevant information should be considered when creating a market research survey. In addition to this, the level of discussion for both relevance and reliability should be increased in depth. All examples should be appropriate and specific to the on-line clothing retailer.

The technique used by the candidate of initially identifying the factors and then taking these to provide a discussion enables the candidate to express their ideas in a fluent way. The keyword of the question is 'Discuss'. Each factor, although only two have been discussed in this answer, can be dealt with separately with examples provided. This allows the candidate to clearly and fluently provide a discussion.

(c) Describe **two** benefits and **one** limitation of using a spreadsheet to manipulate the information gathered in the survey.

Benefit 1 ....

....

....

....

Benefit 2 ....

....

....

....

Limitation ....

....

....

....

[6]

Benefits
- Survey can be linked to a spreadsheet (1) so results are directly imported (1)
- Data can be ordered / grouped (1) according to pre-set rules (1)
- Cell names (1) can be used to categorise data (1)
- Any other valid suggestion

Limitations
- Data can be incorrectly imported (1) if survey does not follow format of spreadsheet (1)
- Inexperienced users (1) could delete data (1)
- A spreadsheet cannot manipulate text (1) so questions on survey need to be numerical (1)
- Any other valid suggestion

Mark Scheme Guidance

Points marking approach.

Max 2 benefits and 1 limitation.

(d) Explain how a spreadsheet could be used when analysing the results of the survey.

- Graphs / charts (1) can be used to convey numerical information (1)
- Modelling / what-if questions can be used (1) to determine impact of variables on data (1)
- Many people can use the spreadsheet (1) with cells being locked to avoid changes (1)
- Statistical data can be found (1) by using functions / formulae (1)
- Any other valid suggestion

[6]

Mark Scheme Guidance

Points marking approach.

Examiner comment

Candidates did not need to apply their responses to Progress BikeSafe in this section of the external examination.

The focus of this question was on an on-line clothing retailer and market research.

Part a(i) of the question required candidates to describe what is meant by qualitative data, providing an example. Many candidates were able to provide a brief description of qualitative data. Acceptable responses could include that this is opinions and is usually collected as words. The example provided needed to relate to the on-line clothing retailer. Many candidates provided an example which did not relate to this context, for example cars and houses, and so were unable to access this mark.

Part a(ii) of the question required candidates to identify two items of non-sensitive data. Those candidates who linked their responses back to the on-line clothing retailer were able to access both marks allocated to this question.

Part (b) of this question was marked using a banded response method. Candidates were awarded marks based on the level of detail included in their response. The focus of the question related to the importance of considering the collection of good quality information when creating a market research survey.

Many candidates were able to provide responses which related to collecting bad information can impact on the business of the retailer including the fact that bad decisions could be made if the information collected is not of good quality. Other acceptable responses could include the consideration of who the survey is going to be targeted at and the use of a range of different types of questions.

Part (c) related to the advantages and disadvantages of using a spreadsheet relating to the information gathered in the survey. The focus was on the use of a spreadsheet to manipulate the information. Many candidates failed to access the marks allocated for this part of the question as they focussed their responses on the ways a spreadsheet could be used to analyse the results. Analysis of the results was part (d) of the question.

Acceptable responses could include the fact that a survey could be linked to a spreadsheet, if an online survey is used, so the results can be directly entered into the spreadsheet or that data can be grouped dependant on pre-set rules / type of questions. Disadvantages could include that a spreadsheet cannot manipulate text so open-ended questions may have to be reformatted into a numerical format.

The responses for part (d) of this question did, however, demonstrate a good level of understanding about how analysis can be carried out by using a spreadsheet. Most candidates were able to achieve at least 2 marks out of the 6 allocated with the most common response being that graphs / charts can be created to show trends and patterns.

8   A UK-based communications company recently had a breach in security relating to its customer database.

(a)   Describe **two** impacts this breach may have had on the customers of the company.

1 ....

....

....

....

2 ....

....

.... **[4]**

- Identity fraud (1) as personal details may have been stolen
- Loss of finances (1) credit cards / loans could be taken out (1)
- May have to reset all passwords (1) to ensure details held by other organisations do not get compromised (1)
- May have to spend time (1) contacting other organisations who hold their personal data / checking credit files (1)
- Any other valid suggestion

Mark Scheme Guidance

Points marking approach

Max 2 impacts..

(b)   Explain how the Computer Misuse Act (CMA) has been broken during this security breach.

....

....

....

....

....

....

....

- Makes it illegal to gain unauthorised access to computer material (1) the breach (1) means that access has been gained (1)
- Unauthorised access with the intent to commit further offences (1) data may have been stolen (1) to enable identity theft to take place (1)
- Unauthorised alterations may have been made (1) account details may have been changed (1) to the benefit of the hackers (1)
- Any other valid suggestion

Mark Scheme Guidance

Points marking approach

Following this breach the company has reviewed its policies and procedures.

(c) Explain the importance to the company of creating a policy for the training of staff to handle information.

- So staff are aware of the legal obligations (1)
- To ensure all staff (1) know the procedures for handling information (1)
- To ensure that the policy is written down (1) and can be referred to (1)
- Any other valid suggestion

[3]

Mark Scheme Guidance

Points marking approach.

(d) Identify the procedure for disposing of old paper-based records.

- Shredding (1)
- Any other valid suggestion

[1]

Mark Scheme Guidance

For one mark.

Examiner comments

Many candidates failed to correctly read part (a) of this question. The focus was on the impact a security breach may have had on the customers of a company. Many candidates provided responses that related to the customer losing trust in the company or that the company would lose money/customers. Neither of these responses relate to an impact on the customer. Acceptable responses could include identity theft as personal details may have been stolen.

Part (b) of this question demonstrated a knowledge gap relating to the Computer Misuse Act (CMA). Many of the response provided were very general and mainly referred to hacking into the computer system. Candidates did not provide the level of detail required to access the 6 marks allocated to this question. An acceptable strategy for answering this question would have been to identify the actions detailed in the CMA and then provide further description as to how this had been broken during the security breech.

The focus of part (c) of this question was on the importance of having a staff training policy. Again, the responses to this question were very generic and failed to demonstrate any depth of understanding. Acceptable response could include that a policy will ensure that it can be referred to by staff and that staff are aware of their legal obligations as these should be covered in the policy.

Part (d) of the question related to how paper records could be disposed of. A worrying number of candidates felt that recycling would be acceptable.

The small print

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