

Cambridge TECHNICALS LEVEL 3

IT



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

Unit 1 – Fundamentals of IT

Version 1

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INTRODUCTION

This resource brings together the questions from the June 2017 examined unit (Unit 1), 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 Question 16a, 21 and 23a.

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>

OCR
Oxford Cambridge and RSA

Level 3 Cambridge Technical in IT
05838/05839/05840/05841/05842/05877

Unit 1: Fundamentals of IT
Monday 15 May 2017 – Morning

Time allowed: 1 hour 30 minutes

You must have:

- a calculator

First Name: _____ Last Name: _____

Centre Number: _____ Candidate Number: _____

Date of Birth: D D M M Y Y Y Y

INSTRUCTIONS

- Use black ink. You may use an HB pencil for graphs and diagrams.
- Complete the boxes above with your name, centre number, candidate number and date of birth.
- Answer all the questions.
- Write your answer to each question in the space provided.
- If additional answer space is required, you should use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.

FOR EXAMINER USE ONLY	
Question No.	Mark
Section A: 1-10	/10
Section B: 16	/10
17	/7
18	/6
19	/10
20	/6
21	/10
22	/10
23	/6
Total	80

INFORMATION

- The total mark for this paper is 80.
- The marks for each question are shown in brackets []
- Quality of extended response will be assessed in questions marked with an asterisk (*).
- This document consists of 20 pages.

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Cambridge Technicals
IT

Unit 1: Fundamentals of IT
Level 3 Cambridge Technical in IT

Mark Scheme for June 2017

Oxford Cambridge and RSA Examinations

OCR
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Cambridge Technicals
IT

Level 3 Cambridge Technical Certificates in IT 05838, 05839
Level 3 Cambridge Technical Diplomas in IT 05840, 05841

OCR Report to Centres June 2017

Oxford Cambridge and RSA Examinations

GENERAL EXAMINER COMMENTS ON THE PAPER

The June 2017 exam series was the second sitting of the Cambridge Technicals in IT unit 1 examination. It was pleasing to see an increase in subject knowledge for some candidates, although there was still a significant subject knowledge gap for many candidates. Responses for some candidates appeared to be little more than general knowledge, often not demonstrating the depth of understanding required after studying this unit. It is essential that candidates have a sound understanding of the content of Fundamentals of IT, as this will provide the foundation needed to study the optional units.

When preparing candidates for this unit, centres should use a wide variety of resources. No single resource will contain all the necessary learning to allow candidates to access the highest grades for this unit. Resources endorsed by OCR contain an introduction to some subject content included in the specification. Additional materials and research will be needed to fully prepare candidates for this unit's summative assessment.

Examination Technique

For the multiple choice questions, most candidates attempted each question. A small number of candidates still did not provide an answer for each question. Good examination technique would suggest that each question is attempted. Candidates could discount clearly incorrect answers to allow them a more informed choice for the remaining questions.

For section B of the paper, the handwriting of some candidates again made it difficult to understand what had been written. Where an examiner is unable to read an answer, no credit can be given. Centres should ensure candidates understand the need to ensure their answers are legible. In extreme cases, centres should consider whether a candidate would benefit from the use of a word processor for the summative assessment.

The answer space on the question paper would usually be sufficient for candidates to give their answer for all but the largest of handwriting. Candidates should resist the temptation to write more than is needed. Good examination technique suggests that the candidate uses succinct statements to answer the given question.

Candidates should be reminded that section B features a brief context. The context should be used in answering the question to allow full marks to be achieved.

Some candidates appeared to have learnt the mark scheme from the January paper and simply wrote answers from January for questions that appeared similar. Whilst it is good practice to provide mock examinations for candidates, it is essential that candidates fully understand all topics in the specification and are able to apply their learning to the context in the questions asked. Simply regurgitating answers from previous sessions will not result in a candidate gaining a passing mark.

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>

Section A

SECTION AAnswer **all** the questions.Put a tick (✓) in the box next to the **one** correct answer for each question.

- 1 BV Digital Comms. has developed its own VoIP software package. A cut-down version of the software is available as Freeware.

Why would BV Digital Comms. choose to distribute the cut-down version of its VoIP software as Freeware?

- (a) To avoid copyright issues.
- (b) To discourage sales of the full programme.
- (c) To encourage software engineers to further develop their programme.
- (d) To encourage users to purchase the full version.

[1]

- 2 A sales team has been asked to analyse the sales figures for one section of a business. The team can use database or spreadsheet software for this purpose.

Which of the following describes why the team may choose to use database software rather than spreadsheet software to analyse the data?

- (a) Spreadsheet software cannot store atomised data in related tables.
- (b) Spreadsheet software cannot create graphs from data.
- (c) Spreadsheet software cannot sort data alphabetically.
- (d) Spreadsheet software cannot sort data into number order.

[1]

3 Which of the following **best** describes the purpose of utility software?

(a) To allow multiple users to use a computer.

(b) To allow the user to maintain a computer.

(c) To allow the user to manage contacts.

(d) To allow the user to manage electricity and plumbing bills.

[1]

4 Businesses can use Short Message Service (SMS) for a range of different purposes.

Which of the following would **not** be an appropriate use of SMS by a business?

(a) To confirm a booking.

(b) To distribute a new social media policy amongst staff.

(c) To inform clients of a forthcoming invite-only sales event.

(d) To remind a client of an appointment.

[1]

5 Which of the following is a protocol used by a web server to deliver a webpage?

(a) Hypertext Mark-up Language (HTML)

(b) Hypertext Transfer Protocol (HTTP)

(c) Simple Mail Transfer Protocol (SMTP)

(d) Internet Control Message Protocol (ICMP)

[1]

6 Which of the following groups has control of the content of a website hosted on a virtual server?

(a) Members of the public

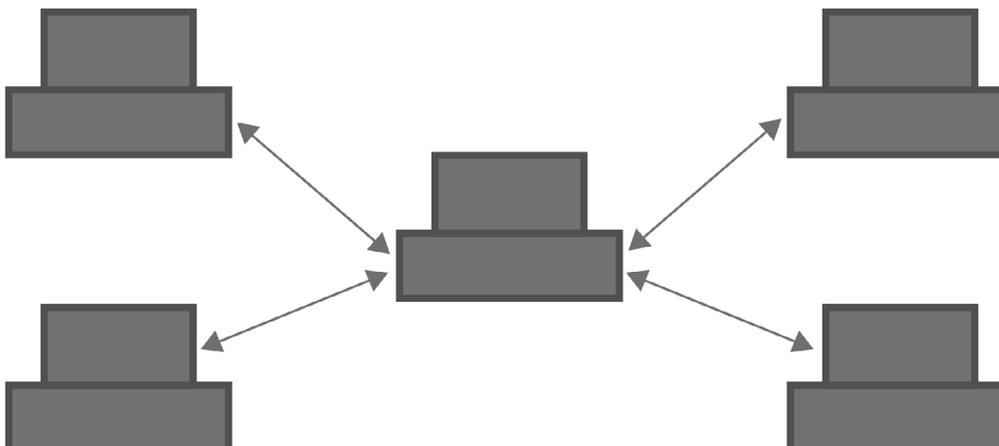
(b) The Data Commissioner

(c) Server manufacturing staff

(d) The owner of the website

[1]

7 Which network topology is shown in this diagram?



(a) Bus

(b) Client server

(c) Peer to peer

(d) Ring

[1]

8 Harrow and Midshire Bank is a small bank with five branches in the UK.

Which of the following **best** describes why Harrow and Midshire bank has decided to create a WAN?

(a) To allow secure communication between different branches.

(b) To host their own bank website.

(c) To improve the speed at which SMS messages may be sent between branches.

(d) To raise revenue by charging other users for access to their leased lines.

[1]

9 Which of the following telephone networks is **least** likely to be connected to the Public Switched Telephone Network (PSTN)?

(a) A mobile phone network.

(b) A nationwide telephone network.

(c) A secure telephone network in a military base.

(d) A telephone network allowing communication within a single building and beyond.

[1]

10 Which of the following would **not** be a suitable activity to complete on a satellite network?

(a) To live broadcast from a natural disaster area.

(b) To play a real-time strategy game.

(c) To send an email from a remote location.

(d) To view a website from within a school building.

[1]

11 Which of the following may be an indication of an ineffective Customer Relationship Management (CRM) process within an organisation?

(a) Increased customer base.

(b) Increased customer loyalty.

(c) Increased customer complaints.

(d) Increased sales.

[1]

12 Which of the following reasons **best** explains why a closed questioning technique may be more effective than an open questioning technique?

(a) Allows the respondent to give expanded answers.

(b) Answers are more reliable.

(c) Answers are more concise that can be easily analysed.

(d) The respondent will feel more engaged in the process.

[1]

13 Which of the following features is **not** commonly available in presentation software?

(a) Data sorting

(b) Graphics

(c) User interaction

(d) Video

[1]

14 Which of the following would be the **most** appropriate dress code to wear to an interview for a sales management role?

(a) Canvas trousers with polo shirt in company colours.

(b) A business suit.

(c) Smart-casual wear.

(d) Jeans with t-shirt.

[1]

15 Individuals who work within the IT industry may study for qualifications as part of their training.

Which of the following is **not** an advantage to the employee of completing this training?

(a) Certification is available to anyone.

(b) Improved job opportunities.

(c) There is overlap in the qualifications that make up different qualifications.

(d) Trainees can focus on those areas that interest them.

[1]

Section B

SECTION BAnswer **all** the questions.

RGIS is a virtualisation specialist company. The company provides IT services to small and medium sized businesses in the UK. The majority of the IT services are delivered from a data centre in Birmingham. The data centre has many racks of servers running a variety of services including virtualisation, file and print, backup and database. Customers of RGIS must purchase a WAN link to the data centre to allow them to access services.

RGIS runs a central help desk to provide support for customers. This can be accessed via a web-site, email or over the telephone.

16 RGIS has many racks of servers in its data centre.

(a) The servers contain different types of memory.

Explain the purpose of the following types of memory:

RAM ... Up to two marks for each of two explanations. e.g.

..... **RAM**

..... • Stores parts of the operating system/running programs (1) for access by the CPU/so data can be processed (1)

..... • Store data from programs (that are open) (1) providing fast access to data (1)

..... • Any other valid suggestion

ROM

..... **ROM**

..... • Holds the boot program/BIOS (1) that is used to start the server/that executes before OS loads (1)

..... • Any other valid suggestion

Cache . ..

..... **Cache**

..... • Stores data that is accessed frequently (1) to allow faster access to the data (1)

..... • Any other valid suggestion

.....

[6]

Mark Scheme Guidance

1 mark for each memory type (max 3) for describing the characteristic of the memory type.

Do not accept a definition (e.g. Ram is Random Access Memory – 0 marks)

Reference to web cache should not be credited.

Examiner comments

Candidates were asked to explain the purpose of RAM, ROM and Cache memory. Some candidates were able to do this successfully, although a number of candidates described characteristics of the memory types, rather than explaining the purpose. Many candidates described the caching of web-sites rather than cache memory. This may be down to poor examination technique; not reading the question correctly, or a lack of subject knowledge.

(b) Servers in the RGIS data centre are connected using a wired Ethernet LAN.

Describe **two** characteristics of a wired Ethernet LAN that make it suitable for this purpose.

- 1..... Two marks per description (max 4)
-
- • High bandwidth/100MB/1GB/10GB (1) so data will be transferred quickly (1)
 - • Dedicated bandwidth (1) between server and switch (1)
 - • Different connection types (1) to support fibre/copper (1)
 - • Uses cables (1) so more difficult to intercept (1)
- 2..... • Any other valid answer
-
-
- [4]**

Mark Scheme Guidance

Do not accept answers relating to cost or reliability

Examiner comments

This question required candidates to describe two characteristics of a wired Ethernet LAN. Many candidates were able to answer this question well, with most talking about dedicated bandwidth and the use of cables. Some candidates said that it was 'faster' or 'cheaper' and these answers were not worthy of credit. It is expected that at this level, candidates would be able to use technical vocabulary to describe characteristics.

Exemplar candidate work

Question 16a - Low level answer

Explain the purpose of the following types of memory:

RAM Random Access memory is a memory which only stores things when the computer is on. When it is off everything is deleted.

ROM Read Only memory is only able to store files and data as it only reads things.

Cache Cache is the memory which can be deleted as it usually has junk files which makes your computer slower.

Commentary

This question asks candidates to explain the **purpose** of RAM, ROM and Cache memory.

This candidate shows a lack of technical knowledge in their answer.

For RAM, they explain that RAM only stores things when the computer is on. Even if this were correct, the use of 'things' is not demonstrating a technical understanding of the specification and so would not be considered worthy of credit.

A correct technical answer would be that RAM is used to store applications/data that is currently needed by the processor.

The candidate goes on to say that when it (the computer) is off, everything is deleted. This is a characteristic of RAM, rather than the purpose. Candidates must be taught correct examination technique so that they answer the question asked, rather than the question they think was asked.

The answer for ROM is not correct and shows no technical understanding of the purpose of ROM. The candidate could tell us that ROM typically holds the BIOS, which is responsible for starting the computer.

For cache memory, the candidate had confused memory type with the Cache in a browser. Again, a lack of technical understanding means the candidate scores no mark for this response.

Cache memory is used by the CPU to allow it to quickly access data that is frequently used.

Exemplar candidate work

Question 16a - Medium level answer

Explain the purpose of the following types of memory:

RAM This allows the ^{Server} ~~computer~~ to store information and data ~~when~~ when you are using a software on the ~~computer~~ Server.

ROM This type of memory stores information which is used only for when the ~~to~~ server is booting up. It is temporary data.

Cache This type of memory keeps a data on a permanent basis until deleted. It allows for quicker loading times as things such as images will already be stored in the cache.

[6]

Commentary

This candidate has a greater understanding of RAM, ROM and Cache, although they have not fully developed their answers.

Again, the question asks the candidate to **explain** the purpose, rather than simply providing a number of points. The OCR command verb glossary should be used to understand what is meant by each command verb.

This candidate tells us that RAM allows the server to store information and data when you are using software. This is the start of an explanation as it is a correct point about the purpose of RAM. The candidate does not go on to develop this point into a complete explanation.

A suitable expansion would be that this information is stored in RAM to allow faster access to the data by the processor (as opposed to having to reload it from disk).

For ROM, the candidate again gives us a point about RAM, telling us that it is used... for when the server is booting up. Again, the do not expand the point to tell us how it is used, for example that it is used to store the BIOS.

Exemplar candidate work

Question 16a - High level answer

Explain the purpose of the following types of memory:

RAM Random access memory is volatile memory that is wiped whenever the ^{server} computer is switched off. This memory holds the instructions and data for programs or data manipulation that are currently running on the system and need to be stored ready to be transferred into the CPU's processing.

ROM Read only memory is a type of non volatile memory that contains the BIOS for a computer system. This means that when the computer boots up, the BIOS in the ROM checks everything's functioning and loads the OS. Data will remain in the ROM once the ^{server} computer is turned off.

Cache Cache memory is a type of memory that is faster than RAM and is therefore used for the instructions and data that either have a high priority or need to be reached quickly and repeatedly compared to the instructions and data that is kept in the RAM.

[6]

Commentary

This candidate starts off by telling us RAM is volatile. Whilst this is technically correct, this is a characteristic of RAM rather than the purpose. Candidates need to ensure they answer the question asked without introducing too much unnecessary information.

If this question asked the candidate to explain **one** purpose of RAM, this characteristic could have been considered the first attempt at the question, and the remaining correct answer would not be considered.

The candidate repeats this with both ROM and Cache.

Reading on, each answer given correctly explains the purpose of the corresponding memory type in sufficient detail to be considered a full mark high level response.

17 Customers connect to the data centre using a router rather than a hybrid device.

Justify the use of a router to connect to the RGIS data centre.

..... Indicative Content

 • Router used to route/transfer data
 • Standalone router has more complex functions
 • More suitable for a business environment
 • If router fails, other features (switch, wifi etc.) still available
 • Not so much down time if needs to be replaced
 • Increased performance from standalone device
 • Additional features such as VPN support etc.

[7]

Mark Scheme Guidance

5-7	Explained more than one reason why a router would be used (or a hybrid device would not be used) At the bottom of the mark band, one of the reasons may not be fully explained.
3-4	Described reason(s) a router would be used (or a hybrid device would not be used)
1-2	Identified reason(s) a router would be used (or a hybrid device would not be used)
0	Nothing worthy of credit

Examiner comments

This question was marked using a banded response mark scheme. Candidates were asked to justify the use of a router to connect to the RGIS data centre. Many candidates had a lack of understanding between a router and a hybrid device. A router is a device that only provides routing functions. A hybrid device is one that features more than one function; often a wireless access point, modem and a switch. Many candidates gave responses that a router was cheaper, and easier to set up, which were not considered worthy of credit. Some candidates explained that a hybrid device is more suitable for a home environment and often lacks the 'business grade' features of a dedicated router. This type of answer would be placed in the top mark band.

18 RGIS uses an off the shelf operating system for all of its servers.

Explain **two** advantages and **one** disadvantage of using an off the shelf operating system.

Advantage 1 .. Up to two marks for each of three explanations. e.g.

..... **Advantages**

- • Support widely available (1) as used by most organisations (1)
- • Should have been tested thoroughly (1) so know features will work (1)
- • Documentation widely available (1) to help with setup/maintenance (1)

Advantage 2 .. to use/buy (1)

- • End users are familiar with the system (1) which means they are more likely
- • Cost to purchase can be lower than bespoke software (1) as it is not
- customised for each organisation (1)
- • Any other valid suggestion

..... **Disadvantages**

Disadvantage .. • Cost to purchase/ongoing maintenance cost can be high (1) which the

- company may not be able to afford/which may be passed on to the
- customer (1)
- • Can contained additional features that the company doesn't need (1) which
- can reduce the performance of the system (1)
- • Any other valid suggestion

.....

[6]

Mark Scheme Guidance

Answers could be disadvantages of open source/bespoke software

Examiner comments

This questions asked candidates to explain two advantages and one disadvantage of using an off the shelf operating system. Many candidates correctly answered this question, by providing explanations linked to the context.

19* RGIS is an ethical employer. It publishes documents that explain to employees about ethical issues important to the running of the company.

Discuss the ethical issues that RGIS should include in its documents.

Answers may include

[10]

- Whistle blowing and the companies response to whistle blowers
- Employer/employee expectations in disability
- Employer/employee expectations in gender
- Employer/employee expectations in sexual discrimination
- Use of information within the organisation
- Codes of practice and the company's expectations
- On-line safety
- Avoiding bias

Mark Scheme Guidance

7-10	3	The learner has explained more than one ethical issue that RGIS should include in its documents. Answers will be in context and will consider more than one viewpoint. At the bottom of the mark band, a single ethical issue/viewpoint may be explained in detail. Subject specific terminology and knowledge will be clearly used to support and inform the explanations.
4-6	2	The learner has described ethical issue(s) that RGIS should include in its documents. Answers may only consider one viewpoint. At the bottom of the mark band, answers may not be in context and a single ethical issue may be described. Some subject specific terminology and knowledge will be used.
1-3	1	The learner has identified points about ethical issues that RGIS should include in its documents. The answer may not be in context. Subject specific terminology may be limited or missing
0		Nothing worthy of credit

Examiner comments

This question was marked using a banded response mark scheme. Candidates are asked to discuss the ethical issues that RGIS should include in documents it publishes to employees. To be awarded marks in the top mark band, candidates should explain more than one ethical issue, from more than one viewpoint. Viewpoints could be the employee and the employer. Some candidates scored well in this question, having clearly studied the relevant specification points. Answers could have focussed on whistleblowing, disability/gender/sexual discrimination, use of information, codes of practice, on-line safety and avoiding bias. Some candidates described a code of conduct, rather than discussing ethical issues that would be included in the documents.

20 One service that RGIS offers is a virtual client.

(a) Describe what is meant by the term virtual client.

- Two marks for a description e.g.
- • Full desktop environment (1) where the processing happens remotely(1)
 - • Operating system is managed/hosted centrally (1) and is displayed locally on a
 - dumb client (1)
 - • Any other valid response
- **[2]**

(b) Explain **two** limitations of using virtual clients.

- 1..... Two marks per limitation, max 4 e.g.
- • If internet/network connectivity is lost (1) then users are unable to work (1)
 - • Increased server load (1) can cause poor performance for all customers (1)
 - • Cost (of servers) is high (1) as they need to be able to run many instances of the
 - client operating system (1)
- 2..... • Expertise needed to install the client (1) requires training (1)
- • Any other valid response
-
-
- **[4]**

Examiner comments

20a

This questions asked candidates to describe what is meant by the term virtual client. Some candidates scored well, although many candidates described chat bots and other Artificial Intelligence type technologies which were not worthy of credit. Lack of subject knowledge and not referring to the case study hampered candidates in their response.

20b

This response asked candidates to explain two limitation of virtual clients. Those that knew what a virtual client is were able to correctly explain their limitations. Many talked about the need for a network connection, and that performance could be poor if a lot of users were accessing the same host.

21* RGIS uses helpdesk software to support its customers.

Explain the benefits and limitations to RGIS of using helpdesk software.

Answers may include [10]

.....

..... **Benefits**

- • Ability to keep track of issues/requests for support
- • Ability to monitor performance of helpdesk personnel
- • Audit log of actions taken by support personnel
- • Ease of communication about problem with end user
- • Call history so common issues can be identified/fixed pro-actively

.....

..... **Limitations**

- • Administrative burden of keeping tickets/job numbers up to date
- • Staff feeling like they are being monitored
- • Rigid structure for support
- • Time taken to deal with 'quick' issues
- • Knowledge base takes time to build up/can go out of date quickly

.....

.....

Mark Scheme Guidance

7-10	3	The learner has explained both benefits and limitations of RGIS' use of helpdesk software. Answers will be in context. Subject specific terminology and knowledge will be clearly used to support and inform the explanations.
		The learner has described benefit(s) and/or limitation(s) of RGIS use of helpdesk software. At the top of the mark band, the answer will be in context. At the bottom of the mark band, a single benefit/limitation may be described. Some subject specific terminology and knowledge will be used.
1-3	1	The learner has identified points about RGIS use of helpdesk software. The answer may not be in context. At the bottom of the mark band, a single point may be identified. Subject specific terminology may be limited or missing.
0		Nothing worthy of credit

Examiner comments

This question was marked using a banded response mark scheme. Candidates were asked to explain the benefits and limitations of RGIS using helpdesk software. Again, lack of subject knowledge prevented many candidates from scoring well in this question. Many candidates incorrectly believed that helpdesk software was an automated tool that fixed software problems without human intervention. Those candidates that scored in mark band three were able to explain at least one benefit and one limitation of using helpdesk software. Most common advantages included the use of tickets to track issues and a call history so different technicians could work on a problem. Common disadvantages included the time it took to log a ticket for quick issues and the fact that staff feel over monitored as all their actions were tracked.

Exemplar candidate work

Question 21 - Low level answer

21* RGIS uses helpdesk software to support its customers.

Explain the benefits and limitations to RGIS of using helpdesk software.

[10]

help desks software will help clients
with all issues it has.

An advantage of using a software
for your helpdesk is it will cost less
money to run rather than paying
someone to do it. Another advantage
is the software will never have
breaks or need holidays like an
employee would.

however a disadvantage is if the
software breaks down then the
it could cost a lot of money
and time to get it running again.
Another disadvantage is that the
software won't be like a person
and sometimes not fully understand
what the issue is.

Commentary

This question asks candidates to explain the benefits and limitations, to RGIS of using helpdesk software. As the question specifically states 'to RGIS', benefits and limitation to customers for example would not be worthy of credit.

Helpdesk software is software that RGIS can use to manage support calls to its IT team. The software typically includes a database of all of the customers, and has the ability to record details of issues customers can have. Each issue and therefore call is usually called a ticket. The ticket has a reference number and information from the customer and the support technician are recorded in the ticket. Tickets can often be created online, via the telephone or by calling the helpdesk telephone number.

Many candidates confused help desk software with an expert system that would use some sort of artificial intelligence to interact with the customer and provide automated answers. This is NOT helpdesk software. Others talked about the online help in an application.

This candidate has started off by telling us that it 'will cost less money to run rather than paying someone to do it'. They then go on to talk about the software not needing breaks. They are clearly NOT talking about helpdesk software, but instead talking about a self help/expert system.

They then go on to talk about a limitation, but again, these are limitations of expert systems rather than limitations of helpdesk software.

The candidate has used good examination technique and given at least one benefit and one limitation, but unfortunately, neither are a correct technical answer.

To improve this response, the candidate should explain at least one benefit or limitation to RGIS of using helpdesk software.

Example benefits include the ability to track progress using tickets, having an editable knowledge base, based on the outcomes of previous calls. Example limitations include the cost to purchase and install the system, and the ongoing technical support needed to run the software.

Exemplar candidate work

Question 21 - Medium level answer

21* RGIS uses helpdesk software to support its customers.

Explain the benefits and limitations to RGIS of using helpdesk software.

[10]

The benefits of the helpdesk is that customers will ask questions and want more information about the ~~customers~~ products and the help desk can try and persuade the customers to buy the products. The limitations of having the helpdesk is that it is very time consuming and it will ~~the~~ need a lot of employees to keep up and ~~the~~ running as customers will connect to the helpdesk anytime and if there is a small number of employees working at the help desk then lots of customers will have to wait a long time until one employee is free to talk to ~~the~~ that customer. However another benefits of the helpdesk is that customers will give feedback on the products and say what the company could do better and improve the information they ~~of~~ get back.

Commentary

At the beginning of the response, it is not clear that the candidate understands what help desk software is. After reading further, the candidate describes the need for enough staff monitoring the helpdesk and customer having to wait as a limitation. The context though is not clear.

The candidate has described a limitation and expands with a very weak description. This meets the requirements of a medium level answer.

To improve to a high level answer, the candidate should explain both a benefit and a limitation of helpdesk software. Suitable benefits include ability to track progress using tickets, having an editable knowledge base, based on the outcomes of previous calls.

Exemplar candidate work

Question 21 - High level answer

21* RGIS uses helpdesk software to support its customers.

Admin

Explain the benefits and limitations to RGIS of using helpdesk software.

[10]

Firstly, one benefit of using a helpdesk is that it identifies common problems for the business. This means that the business can target this problem and provide ways of fixing the issue in order to move forward. RGIS could use helpdesk software to identify any problems with their virtualisation servers, such as the server crashing which could be improved by the business to improve customer satisfaction and loyalty.

Moreover, another benefit of using a helpdesk software is that it allows customer interaction with the business for any problems they may have. This means that the business is showing good customer service as they are providing a means of which to contact them and help our customers with their problems. RGIS could use this to help their customers with any misunderstanding of what how to connect with their servers and giving good customer service and improving the reputation of the business.

On the other hand, a limitation of using a helpdesk software is the cost of staffing and training needed to use the software. This cost could be better spent on making improvements to the business as well as saving time on staff training to use the software. RGIS could use this money to save money on improving their virtualisation software services ~~rather than~~ and have more

staff working on doing so rather than having a helpdesk.
 Furthermore, another limitation of using helpdesk
 software is an administration? maintenance it requires. This
 is because the software will need updating with logs of
 previous faults that the servers have and changes that have
 been made to the system. RGIS will have to ^{use staff} provide
 for maintenance and administration that could better use their
 time to sell/advertise their services to businesses and saving
 out on sales for the company.

Finally, another limitation of a helpdesk is the cost
 of the software ^{and machine resources}. The software will have
 initial costs to install and the company will have
 to provide systems for the desk to use. This means
 the RGIS will lose money on spending for their
 help desk software and systems and anyone lose
 out on profit.

Commentary

This candidate has provided a high level response. They have explained more than one benefit and more than one limitation to RGIS of using helpdesk software.

They have explained how the software could be used to identify common problems (knowledge base of issues and proactive support) as well as explained how customers can experience good service from RGIS. They have also explained limitations regarding staffing and training being needed and that administration and maintenance will be needed on the system.

All of what has been written is technically correct and the answer is in context. This meets the requirements of a high level answer.

22 RGIS would like to employ a new IT Technician.

(a) One personal attribute that the new IT Technician should have is good numerical skills.

Identify **two other** personal attributes that the new IT Technician should have. For each, explain why the attribute is important.

Attribute 1	One mark per attribute identified (max 2) two marks per description (max 4) e.g.	.....
.....
Why important ..	Self-motivated (1st)	.....
.....	• RGIS needs someone productive (1) who will keep on track with tasks on their own (1)	.....
.....	Dependable (1st)	.....
.....	• RGIS needs to be able to give someone a task (1) and know that it will get done (1)	.....
.....	Punctual (1st)	.....
Attribute 2	• RGIS expects staff to be on time (1) so tasks can be completed on time (1)	.....
.....	Time management (1st)	.....
Why important ..	• RGIS expects staff to manage their time effectively (1) so that all tasks get completed (1)	.....
.....	Problem solving (1st)	.....
.....	• RGIS needs staff to be able to troubleshoot to identify (1) and rectify issues with the system (1)	.....
.....	Communication Skills (1st)	.....
.....	• Ability to communicate effectively with colleagues (1) to explain/understand instructions (1)	.....
.....	• Remain calm (1) when dealing with difficult customers (1)	.....
.....	Any other valid response	.....

[6]

Mark Scheme Guidance

If attribute not identified, then do not award why important.

Do not accept numerical skills

Examiner comments

This questions asked candidates to identify two attributes, other than good numerical skills, that an IT technician should have. Poor examination technique meant that many candidates gave good numerical skills as their first answer!

(b) RGIS advertises the IT Technician job using social media.

Explain **two** advantages of advertising the IT Technician job using social media.

- 1..... Two marks per explanation (max 4) e.g.
-
- • People who want to work for the company may already be following them (1) so the advert will target the right audience (1)
 - • Advert can get wider viewing (1) than just publishing it on their own web site (1)
- 2..... • Clever advertising could make the advert go viral (1) which will significantly increase views (1)
- • Any other valid response
-

[4]

Examiner comments

This question required candidates to explain two advantages of advertising an IT Technicians job using social media. Again, many candidates failed to recognise the context in the question and simply gave general knowledge answers about the use of social media in general, rather than explaining the advantages of advertising a job. Those that did score well explained that the company may already have followers that were interested in the organisation, so would be more likely to see the advert.

23 RGIS uses physical security methods to prevent unauthorised access to its data centre.

(a) Explain **two** physical security methods that RGIS would use to prevent unauthorised access to its equipment.

1..... Two marks per description (max 4) e.g.

- • Locks on the door (1) to prevent people getting in (1)
- • Biometrics (1) so only authorised users could gain access/log on (1)
- • Token (1) for two factor authentication (1)

2..... • Bars on windows (1) to prevent intruders from accessing data

- • Any other valid response

.....

.....

[4]

Examiner comments

This question required candidates to explain two physical security methods that PGIS would use to prevent unauthorised access to its equipment. Many candidates scored well on this question. A small number of candidates gave answers about CCTV, which would not prevent access as it simply allows for monitoring. These answers were not considered worthy of credit.

Exemplar candidate work

Question 23a - Low level answer

- (a) Explain **two** physical security methods that RGIS would use to prevent unauthorised access to its equipment.

1. Shredding - cut the papers into thin strands.

Commentary

This question asked candidates to explain two physical security methods that would prevent unauthorised access to its equipment.

This candidate has described the process of shredding [documents]. Whilst this could be considered a physical security method, it would not prevent access to equipment.

A medium level answer would explain the process of ensuring the equipment in a locked room which only the IT staff had the key for.

Exemplar candidate work

Question 23a - Medium level answer

- (a) Explain **two** physical security methods that RGIS would use to prevent unauthorised access to its equipment.

1. Locks could be used to prevent unauthorised access, this could physically keep the documents secure as they cannot be breached by any thieves.

2. Biometrics such as fingerscans or handprints ensures that the company can keep access to data as minimal as possible, this would allow a reduction in the ^{possible} (possibly) thefts that can occur.

[4]

Commentary

In this response, the candidate has identified locks as the method and has gone on to explain that by using locks [to lock the door of a server room] thieves [unauthorised users] would not be able to gain access. They have also identified biometric access such as fingerprints although the expansion here is weak.

To move to the top band, candidates should be more clear with their explanations, making it clear what area the locks are protecting for example, or offering more technical expansion for the biometric response.

Exemplar candidate work

Question 23a - High level answer

- (a) Explain **two** physical security methods that RGIS would use to prevent unauthorised access to its equipment.

1. A physical key to prevent people accessing the servers locked up in cages. This can prevent people stealing hardware or data.

2. Key card that employees swipe to gain access to the building, this can prevent unauthorised personnel from walking inside the building and potentially stealing data or hardware.

Commentary

This high level response fully explains two physical security methods that RGIS would use and scores full marks.

The candidate has used relevant examples, in context and explained using technical vocabulary how the methods meet the needs of RGIS.

(b) Before RGIS disposes of old computer equipment, it is electromagnetically wiped.

Explain why equipment is electromagnetically wiped.

Up to **two** marks for an explanation e.g.

- So RGIS can be sure that their data is no longer on the devices (1) and it can't be accessed by a third party (1)
- So that the device can be used again (1) as it is not physically damaged (1)
- Any other valid response

.....
.....
.....
.....[2]

Examiner comments

This question asked candidates to explain why old computer equipment is electromagnetically wiped. Many candidates were able to correctly explain that it would ensure that no data was still on the device and so it can't be accessed by a third party if the equipment is recycled/passed on to others.



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