

SAMPLE ASSESSMENT MATERIAL

Level 3 Cambridge Technical in IT 05838/ 05839/ 05840/ 05841/ 05842 Unit 2 Global information

Date - Morning/Afternoon

Time Allowed: 1 hour 30 minutes



You must have:

The insert (clean copy case study)



First Name	Last Name
Centre Number	Candidate Number
Date of Birth	

INSTRUCTIONS

- Use black ink.
- Complete the boxes above with your name, centre number and candidate number.
- Answer all the questions.
- Write your answer to each question in the space provided.
- Do not write in the bar codes.

INFORMATION

- The case study should be used to answer questions in Section A.
- 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 12 pages.

Answer **all** the questions

Section A

This section relates to the case study on Progress Vision.

1. The current Progress Vision website is basic. It uses static web pages and contains four information styles: text, graphics, animated graphics and video.

Progress Vision plans to make enhancements to its website. The aim is to raise awareness of the charity's work and to increase donations.

E	xplain one reason why Progress Vision would use dynamic webpages.
-	ne current Progress Visions website uses a limited range of information formats.
d	entify two additional information formats that could be added to the enhanced website,
	stifying each of your choices.
)	
2.	
2.	
2.	

[4]

2.	Progress Vision is reviewing its information security and personal data protection measures	
(a)	Confidentiality is one of the principles of information security.	
	Identify two other principles of information security.	
	1	
	2	
		[2]
(b)	Identify one reason why Progress Vision might store backups of systems off-site. Justify how this action would secure the information.	
	Reason	
	Justification	
(c)	Explain two issues Progress Vision must consider when anonymising personal data.	[2]
	1	
	2	
		[4]

3.	Data relating to all of the glasses in stock is stored in the database table 'Jobs' (see Fig. 3).	
(a)		
(i)	Identify the name of the field in the table that contains the Boolean information style.	
		[1]
(ii)	State one other information style used in the table.	
		[1]
(b)	The table contains a wide range of data about the work carried out in the optical workshop.	
	Justify one data analysis tool the manager of the optical workshop could use to obtain useful information.	
		[4]

		Progress Vision gathers information from a wide range of sources.
Progress Vision uses data for many different purposes. Identify two ways in which Progress Vision could use its data. 1. 2. Identify three logical protection measures, other than obfuscation, that could be used by Progress Vision to help keep information secure. Justify why each of these measures would keep information secure. 1.		
Progress Vision uses data for many different purposes. Identify two ways in which Progress Vision could use its data. 1	_	
Progress Vision uses data for many different purposes. Identify two ways in which Progress Vision could use its data. 1	_	
Progress Vision uses data for many different purposes. Identify two ways in which Progress Vision could use its data. I	_	
Identify two ways in which Progress Vision could use its data. 1	-	
Identify three logical protection measures, other than obfuscation, that could be used by Progress Vision to help keep information secure. Justify why each of these measures would keep information secure. 1		Progress Vision uses data for many different purposes.
Identify three logical protection measures, other than obfuscation, that could be used by Progress Vision to help keep information secure. Justify why each of these measures would keep information secure. 1		Identify two ways in which Progress Vision could use its data.
Identify three logical protection measures, other than obfuscation, that could be used by Progress Vision to help keep information secure. Justify why each of these measures would keep information secure. 1	1	·
Progress Vision to help keep information secure. Justify why each of these measures would keep information secure. 1	2	2
Progress Vision to help keep information secure. Justify why each of these measures would keep information secure. 1		
Progress Vision to help keep information secure. Justify why each of these measures would keep information secure. 1		
		·
	_	
	-	
3.	4	<u></u>
3	_	
3.	_	
3.	_	
	3	3
	_	

5.

	The Chief Executive is concerned that Progress Vision does not fully meet information sec data protection legislation in the UK.	urity ar
a)	State two current laws that Progress Vision must comply with when securing and protectin information.	g
	1	
	2	
)	Explain two possible effects on Progress Vision if it were to lose or mishandle personal information.	[2]
	1	
	2	
		[4]
(C)	Explain possible actions that Progress Vision should take to comply with UK legislation	
Ο,	relating to information security and data protection.	
		[6]

Section B

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

6. An online retailer wants to analyse its sales data.

Table 1 below shows some of the phases of data analysis.

Phase	Activity
1	identify the need
2	define scope
3	identify potential sources
4	source and select information
5	select the most appropriate tools
6	process and analyse data
7	record and store information
8	share results

Identif	fy one example of an item that could be used to define the scope in phase 2.
	in one advantage and one disadvantage to the online retailer of using World Wide echnologies.
Advar	ntage
Disad	vantage

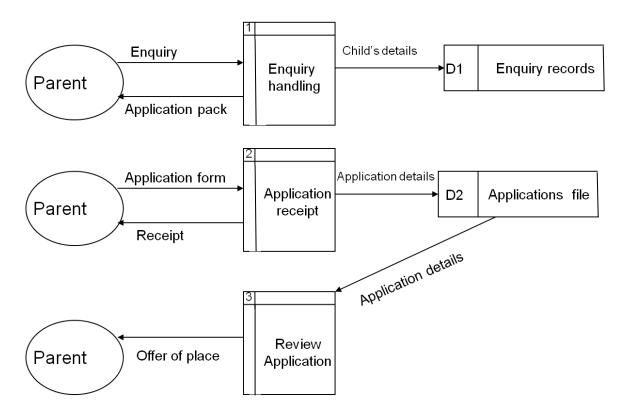
-		_
_		_
-		
-		_
-		
-		
-		
_		_
-		
_		_
-		
_		
-		
-		_
-		
	Information is hold by individuals and argenizations alshally	
	Information is held by individuals and organisations globally.	
į	Explain one reason why working from home in a rural location might affect an individual's ability to work remotely.	
-		_

Analyse possible issues for organisations when transmitting sensitive data.

8.	Organisations use information to carry out financial analysis and modelling.
	Explain one way in which an organisation could use financial analysis and modelling.

[3]

9. Here is a data flow diagram showing how to apply for a place at a school.



(a) State **one** process shown in the data flow diagram.

_____[1]

(b)	Explain one feature that could affect the flow of information in the data flow diagram above.		
).	An international bank wants to improve its global image.		
a)	The bank could use Green IT to enhance its brand image.		
	Describe one way in which Green IT could be implemented by the bank to improve sustainability.		
	[
b)	Explain one information-based technique that the bank could use for promotion and marketing		
	[:		

END OF QUESTION PAPER

© OCR 2015 SPECIMEN

THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK



Copyright Information:

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material OCR will be happy to

correct its mistake at the earliest possible opportunity.

For queries or further information please contact the Copyright Team, First Floor, 9 Hills Road, Cambridge CB2 1GE. OCR is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.

Oxford Cambridge and RSA Examinations is a Company Limited by Guarantee Registered in England Registered Office: 1 Hills Road, Cambridge, CB1 2EU Registered Company Number: 3484466 OCR is an exempt Charity



SPECIMEN

SAMPLE ASSESSMENT MATERIAL

80

LEVEL 3 CAMBRIDGE TECHNICALS IN IT
Unit 2 Global information

MARK SCHEME

Duration: 1 hour 30 minutes

MAXIMUM MARK

SPECIMEN

Version: 1 Date: 30/07/2015

This document consists of 13 pages

Section A

C	uestion	Answer	Marks	Guidance
1	(a)	 It is easier to update across multiple pages (1) because each section of the web page is separate (1) It is simpler for non-technical people to update the content (1) because the various parts of the page are all separate, and the content creator won't need to know any HTML in order to create a new page or article for the site. (1) 	2	Points marking approach. One mark for correct identification plus an additional one mark for valid explanation.
1	(b)	 Blogs(1) to allow field workers to share details of their work with others (1). Educational resources(1) to help schools to become involved in fund raising for Progress Vision (1). Discussion boards(1) to allow the charity to answer questions asked by people via the discussion board (1). Any other valid suggestion. 	4	Points marking approach. One mark for each correct identification up to a maximum of two identifications plus up to a further one mark for each of two justifications.
2	(a)	Integrity (1)Availability (1)	2	Points marking approach. One mark for each correct identification up to a maximum of two identifications.
2	(b)	 To ensure that an organisation's data is kept secure (1) if anything happened to the location of the original data, there would be a backup copy which could be accessed (1) Backup data can be accessed from any remote location (1) via the internet or FTP e.g. using the 	2	Points marking approach. One mark for correct identification plus an additional one mark for valid justification.

Q	uesti	on	Answer	Marks	Guidance
			cloud (1)		
2	(c)		 The compromise between partial and complete anonymisation (1) and the potential loss of useful information (1). Data protection law does not apply to anonymous data (1) but there is the danger of re-identification of the person (1). Loss of public trust in the organisation (1) if data is insufficiently anonymised (1). Any other valid suggestion. 	4	Points marking approach. One mark for each correct identification up to a maximum of two identifications plus a further one mark for each of two explanations.
3	(a)	(i)	Ready to ship (1).	1	For one mark:
3	(a)	(ii)	Text (1).Numerical (1).	1	For one mark:
3	(b)		 Visualisation of data (e.g. chart, graph, etc.) (1) because this could make it easier to see trends and patterns (1), makes data easier to understand (1) and information can be interpreted more quickly (1). Data cleaning (1) because this could reduce the size of the data table (1), making it easier to work with (1) it improves the quality of the data being used by removing errors (1) and it removes irrelevant data (1). Statistical analysis (1) as this would allow the manager to find out the percentages of each type of job (1), data could be interpreted correctly (1) and apparent relationships between the data could be confirmed as meaningful (1). Any other valid suggestion. 	4	Points marking approach. One mark for correct identification plus an additional three marks for valid justification.

	uesti	on Answer	Marks	Guidance
4	(a)	 Hiding/masking part or all of the data (1). Obscuring part or all of the data (1). Correct meaning worded differently (1). Any other valid suggestion. 	2	Points marking approach. One mark for correct definition of term plus an additional one mark for valid example.
4	(b)	 Example is payment card (1). Purchasing (1) Manufacturing (1) Marketing (1) Finance (1) Human resources(1) Any other valid suggestion. 	2	Points marking approach. One mark for each correct identification up to a maximum of two identifications.
4	(c)	 Tiered levels of access to data (1) this can be used to reduce the number of people with access to sensitive data (1) and prevent people from having full access to data, which includes editing when they only need to read it, thereby reducing possible errors. (1). Anti-malware applications (1) because this will help prevent viruses and worms from damaging data and systems (1) and will assist in the removal of unwanted software. Encryption of data at rest (1) because this will help prevent hackers from accessing any data that they find (1) and protect data when transporting data between locations (1). Electronic data shredding (1) to remove data securely from future access if hard drives or systems are sold/passed on (1) and to comply with all relevant data protection legislation and regulation as well as organisational policies (1). Any other valid suggestion. 	6	Points marking approach. One mark for each correct identification up to a maximum of three identifications plus up to an additional two marks for each of three justifications.

C	uestion	Answer	Marks	Guidance
5	(a)	 Data Protection Act 1998 (1). Regulation of Investigatory Powers Act 2000 (1). Protection of Freedoms Act 2012 (1). Freedom of Information Act 2000 (1). Computer Misuse Act 1990 (1). Copyright, Designs and Patents Act 1988 (1). Information Commissioner's Office (ICO) codes of practice (1). Privacy and Electronic Communications Regulations 2003 (amended 2011) (1). Any other valid suggestion. 	2	Points marking approach. One mark for each correct identification up to a maximum of two identifications. Do not accept answers without dates. Do not accept DPA or RIPA.
5	(b)	 Loss of reputation (1) because donors will not trust the charity if they hear about any loss or mishandling of personal information (1). Fines from the UK Information Commissioner 's Office (1) because they might have broken the Data Protection Act (1998). Reduced donations (1) because donors will not want their personal data held by Progress Vision (1). Any other valid suggestion. 	4	Points marking approach. One mark for each correct identification up to a maximum of two identifications plus up to an additional one mark for each of two explanations. Accept: use of ICO and/or DPA within otherwise correct answers. Do not accept generic explanations e.g. lose money, get a bad name.

Question	Answer	Marks	Guidance
5 (c)	 Indicative content: Follow relevant ICO codes of practice because this will ensure that best practice will be followed and it will also ensure that the charity complies with the Data Protection Act 1998. Effective internal assessment of compliance with UK legislation because this will identify weaknesses in Progress Vision's information security and then allow them to make the changes needed to comply with the law. Physical protection in place for information because this will limit access to only those who are authorised and know the keypad code and data will be backed up in case of problems. 	6	Levels of response marking approach. 5-6

Section B

Question	Answer	Marks	Guidance
6 (a)	 Content (1). Detail (1). Timescales (1). Constraints (1). Any other valid suggestion. 	1	For one mark: Accept valid alternatives, without duplication of meaning.
6 (b)	 Advantages 24/7 access for customers (1) so that people can buy from the website at any time of day, increasing sales (1). Global audience (1) because the online shop will be accessible all around the world on the World Wide Web, increasing the number of potential customers (1). Any other valid suggestion. Disadvantages Increased costs for securing their computer systems (1) to assist protection against cybercrime (1). Cost of maintaining the website (1) as it must be updated regularly to remain relevant to their customer base (1). Complex data storage required (1) due to data traffic, complex links to customer and financial organisations as well as inventory systems for stock control, etc. (1). Any other valid suggestion. 	4	Points marking approach. Advantage: One mark for correct identification plus an additional one mark for an explanation. Disadvantage: One mark for correct identification plus an additional one mark for an explanation.

Question	Answer	Marks	Guidance
6 (c)*	Indicative content: Quality of information that may be poor:	10	T-10

	Questi	on	Answer	Marks	Guidance
7	(a)		 There could be poor connectivity (1) due to poor communication infrastructure (1). The slow speed of the internet connection (1). could result in the lone worker not being able to access certain sites or download files (1). 	2	Points marking approach. One mark for correct identification plus an additional one mark for valid explanation.

Question	Answer	Marks	Guidance
Question 7 (b)*	Indicative content: Compliance with legislation locally and globally Cost of infrastructure to ensure security of systems against cyber attacks Methods to use to secure systems and data against cyber attacks Impacts to organisations if transmitted sensitive data gets into the wrong hands	Marks 10	T-10 Has shown a detailed level of understanding by analysing the issues for organisations when transmitting sensitive data. The learner is able to provide a clear explanation of more than one issue and the impact of these issues. Relevant examples will be used to support analysis 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 Has shown a good level of understanding by explaining the issue(s) for organisations when transmitting sensitive data. Explanations may concentrate on either the issue or the impact with limited depth in the expansions. Some examples used to support explanation may not be relevant and may at times detract from fluency of narrative. 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 issues when transmitting sensitive data. Limited use of examples to accompany description and ideas will be poorly expressed. 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. O Nothing worthy of credit marks

C	uestio	n Answer	Marks	Guidance
8		 To carry out 'what if' modelling of scenarios (1) in the sales department (1) in order to establish the amount of increase in the sales price to make a certain level of profit (1); to obtain results to analyse the effect of an decrease in sales of certain products (1). To analyse investment returns (1) so that they can be evaluated and decisions made accordingly (1) to establish any trends or patterns in investment returns over time (1). Any other valid suggestion. 	3	Points marking approach. One mark for correct identification plus an additional two marks for valid explanation.
9	(a)	 Enquiry handling (1). Application receipt (1). Review application (1). 	1	For one mark:
9	(b)	 Information characteristics: If the application form is not filled in correctly (1), it could cause a delay in processing the application (1). People: Staff operating the system will need to be trained in how to use it (1), otherwise mistakes could be made (1). Hardware: The computers used will need to be reliable (1) otherwise the system will not always be available (1). The storage capacity of the hardware system will have to be sufficiently large (1), otherwise it will not be able to store all the data (1). 	2	Points marking approach. One mark for correct identification plus an additional one mark for valid explanation.

Question	Answer	Marks	Guidance
10 (a) Com	The communications between the school and the parents must be efficient (1). If the application pack is not sent out in good time, then delays could occur in the system (1). The receipt should be sent to the parent as soon as the application form has been received (1), otherwise the parent will not know that the form has arrived, as they will not have received any confirmation (1). Any other valid suggestion. Switch off when not in use (1) to reduce power consumption (1). Use power management to switch off monitors/drives (1) to reduce power consumption and wastage of power (1). Reuse in a different role (1) as part of a sustainability programme (1). Recycle when no longer needed (1) donate equipment to charities, etc. (1). Use desktop virtualisation (1) to reduce the costs of purchasing and maintenance of complete computer systems (1).	2	Points marking approach. One mark for correct identification plus an additional one mark for valid description. Only 1 mark for 'switch off when not in use' and 'use power management to switch off' without either 'monitors' or 'drives'.

Question	Answer	Marks	Guidance
10 (b)	 Search engine optimisation (1) so that the bank's website appears higher in search engine listings (1) which could bring more visitors to their site (1). Forums (1) can be used by the customer services department (1) to address questions and problems raised by customers or potential customers (1). Any other valid suggestion. 	3	Points marking approach. One mark for correct identification plus an additional one mark for valid explanation. Do not accept techniques not based on information e.g. adverts, banners.