

**NATIONAL
SENIOR CERTIFICATE**

GRADE 11

NOVEMBER 2020

**COMPUTER APPLICATIONS TECHNOLOGY P2
(EXEMPLAR)**

MARKS: 150

TIME: 3 hours



This question paper consists of 17 pages.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of:
SECTION A (25 marks)
SECTION B (75 marks)
SECTION C (50 marks)
2. Answer ALL the questions.
3. Number the answers correctly according to the numbering system used in this question paper.
4. Start EACH question on a NEW page.
5. Do NOT write in the right-hand margin of the ANSWER BOOK.
6. Leave a line after EACH sub-question.
7. In general, one mark is allocated per fact. A 2-mark question would therefore require TWO facts, etc.
8. All answers MUST be related to Computer Applications Technology.
9. Answers such as 'cheaper', 'slower'/'faster' and 'easier' will ONLY be accepted if it is used together with a reason or an explanation.
10. Do not use branch names in answers, unless specifically required.
11. Write neatly and legibly.

SECTION A**QUESTION 1: MULTIPLE-CHOICE QUESTIONS**

Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question numbers (1.1–1.10) in the ANSWER BOOK, for example 1.11 D.

- 1.1 A collection of unprocessed facts, figures and symbols, is known as ...
A information.
B pre-processed facts.
C data.
D output. (1)
- 1.2 New technology makes it possible for the police and licence department to import people's fingerprints electronically into the system. This method is known as ... input.
A biometric
B terminal
C digital
D optimal (1)
- 1.3 Plug and Play refers to ...
A cellular communications technology.
B technology that makes the quick plugging in and using of peripherals very easy.
C a variety of computer games.
D the process of burning or playing CDs. (1)
- 1.4 Nowadays it is common practice to run an online diary or journal. This is known as ...
A pharming.
B wikis.
C vlogging.
D blogging. (1)
- 1.5 The network in Peter's office building covers a small area. This type of network is known as a ...
A WAN.
B GAN.
C PAN.
D LAN. (1)

- 1.6 The illegal sending of an e-mail message claiming to be from a bank, is known as ...
- A phishing.
 - B pharming.
 - C spyware.
 - D spamming.
- (1)
- 1.7 A recorded audio message stored on a website that can be downloaded to a digital device is known as a ...
- A web browser.
 - B podcast.
 - C website.
 - D ISP.
- (1)
- 1.8 The purchase of goods and services over the Internet (e.g. booking holiday accommodation) is known as ...
- A e-commerce.
 - B cyber business.
 - C EFT.
 - D downloading.
- (1)
- 1.9 What type of break must you insert to force a new page in a document?
- A Soft page break
 - B Section break
 - C Continuous break
 - D Hard page break
- (1)
- 1.10 Which one of the following is the best description of the 'Magnifier' accessibility option in Windows?
- A Sets up the High Contrast option to reduce eyestrain.
 - B Reads on-screen dialog boxes, menus and buttons aloud.
 - C Enlarges selected text and other on-screen viewing.
 - D Configures your computer system to meet your vision, hearing and mobility needs.
- (1)

[10]

QUESTION 2: MATCHING ITEMS

Choose a term/concept from COLUMN B that matches a description in COLUMN A. Write only the letter (A–M) next to the question number (2.1–2.10) in the ANSWER BOOK, for example 2.11 N.

COLUMN A		COLUMN B	
2.1	The ratio between the width and height of a screen	A	ppm
2.2	The specification in which the brightness of a data projector is measured	B	ISO
2.3	A type of printer that can be used to make real, physical objects	C	design view
2.4	The specification in which the resolution of a printer is measured	D	QR-code
2.5	The specification in which the speed of a printer is measured	E	Lumens
2.6	A type of technology that mobile devices can make use of to determine the user's geographical location (where they are)	F	datasheet view
2.7	A code that, when scanned, allows you to access a website without having to type in the URL	G	dpi
2.8	Software used to convert scanned images into editable text	H	aspect ratio
2.9	The setting on the camera for measuring the sensitivity to light	I	contrast ratio
2.10	The view in Access that displays the content of a table in rows and columns	J	OCR
		K	3D printer
		L	GPS
		M	laser printer

(10 x 1) **[10]**

QUESTION 3: TRUE/FALSE ITEM

Indicate whether the following statements are TRUE or FALSE. Write 'true' or 'false' next to the question number (3.1–3.5) in the ANSWER BOOK. Correct the statement if it is FALSE. Change the underlined word(s) to make the statement TRUE. (You may not simply use the word 'NOT' to change the statement. NO mark will be awarded if only FALSE is written down.)

EXAMPLES:

QUESTION	ANSWER
<u>Facebook</u> is an example of a social networking website.	True
A <u>NIC</u> has slots for hardware components such as the CPU.	False – motherboard

- 3.1 A hyperlink is a built-in connection to another related webpage or website, usually indicated as underlined text or graphic. (1)
- 3.2 A header is text that appears within the bottom margin of all pages in a document or file. (1)
- 3.3 Freeware usually stops working when the trial period has expired. (1)
- 3.4 A check box allows the user to choose only one from a given set of options. (1)
- 3.5 The interface is the way the different functions of a program are arranged and provides a way in which users can use programs to communicate with the computer. (1)
- [5]**

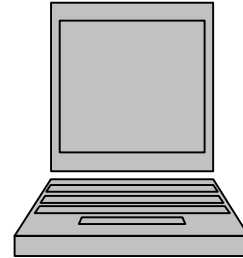
TOTAL SECTION A: 25

SECTION B**QUESTION 4: SYSTEM TECHNOLOGIES**

Study the advertisement below before answering the questions that follow.

NOTEBOOK G74SX

- Core i5
- 17.3" full HD 1920 x 1080 LED display
- 8 GB DDR3 RAM
- 750 GB HDD + 160 GB SSD
- Integrated Intel HD3000 graphics
- Blu-ray writer
- Backlit keyboard
- Wireless LAN and Bluetooth
- Windows 10
- Microsoft Security Essentials



- 4.1 Give the specification in the advertisement that refers to the processor. (1)
- 4.2 The display is specified as a 17.3" full HD 1920 x 1080 LED display.
- 4.2.1 Which specification does 17.3" refer to? (1)
- 4.2.2 Name the specification that the numbers 1920 x 1080 refer to. (1)
- 4.2.3 What does *HD* stand for? (1)
- 4.3 Explain TWO functions of RAM in a computer. (2)
- 4.4 An operating system is mentioned in the advertisement.
- 4.4.1 Name the operating system mentioned in the advertisement. (1)
- 4.4.2 Name ONE open-source operating system that could be used on this computer. (1)
- 4.5 The advertisement specifies an HDD and an SSD (solid state drive).
- 4.5.1 What is the main advantage of a solid state drive when compared to other drives? (1)
- 4.5.2 What is the main function of the HDD? (1)

- 4.6 The specification 'Integrated Intel HD3000 graphics' appears in the advertisement.

What does the term *integrated* refer to? (1)

- 4.7 Backup utilities enable users to make copies of certain files but you can also archive your files.

Explain the term *archive*. (2)

- 4.8 The advertisement does not specifically mention input devices other than the built-in backlit keyboard on the notebook.

Name TWO input devices (other than the keyboard) that you would expect to be built into the notebook. (2)

- 4.9 Suggest a way in which a person who cannot use his or her hands, can create a document by themselves. In your answer, include the hardware and software needed. (2)

- 4.10 Losing data when working on a computer can cause much frustration.

4.10.1 Name the device that users can connect to their computers that will prevent the loss of data during a power failure. (1)

4.10.2 Discuss TWO other ways in which a user could ensure that data is not deleted or altered by mistake. (2)

- 4.11 A wide variety of application software is available on the internet.

4.11.1 Name the type or class of software used to access and view web pages on the internet.

Do NOT use specific examples or brand names in your answer. (1)

4.11.2 State TWO ways in which people can communicate person-to-person using (web) applications on the computer. (2)

4.11.3 Name the general term used to describe the illegal use and illegal distribution of software. (1)

4.11.4 Name the system application you should use to remove unwanted programs, rather than simply delete them. (1)

[25]

QUESTION 5: INTERNET AND NETWORK TECHNOLOGIES

- 5.1 People are increasingly using networked computers for business, education, communication and entertainment.
- 5.1.1 Give a definition of a *network*. (2)
- 5.1.2 Give TWO reasons for setting up a network at a business. (2)
- 5.2 Name THREE hardware components needed to set up a network. (3)
- 5.3 What is the main difference between a *client computer (workstation)* and a *network server*? (2)
- 5.4 Name TWO services offered by an ISP. (2)
- 5.5 What is the *World Wide Web*? (2)
- 5.6 Users may become the victims of fraud as a result of their Internet access or e-mail usage.
- State TWO ways in which banks protect users to ensure that transactions carried out over the internet are secure. (2)
- [15]**

QUESTION 6: INFORMATION MANAGEMENT

6.1 Refer to a formal written report, such as your PAT, and explain the purpose of an:

6.1.1 Abstract (1)

6.1.2 Introduction (1)

6.2 When you did research for your PAT, you found some of the information on the topic appeared to be unsuitable.

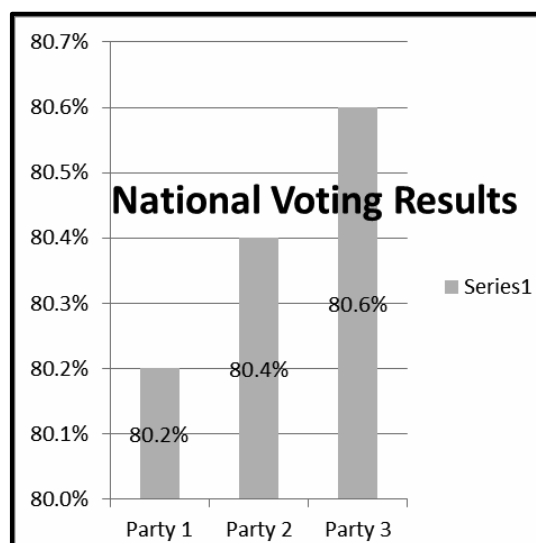
State TWO indications that some of the information found may not be accurate and cannot be used in your report. (2)

6.3 Closed questions have a set of answers to choose from.

6.3.1 Discuss ONE limitation of using closed questions in a questionnaire. (1)

6.3.2 Give TWO benefits for a researcher when closed questions are answered electronically. (2)

6.4 Study the graph below that shows the final outcome of a national election and answer the question that follows.



Give THREE reasons why it is difficult to interpret the graph.

(3)
[10]

QUESTION 7: SOCIAL IMPLICATIONS

7.1 Many cases of internet addiction are reported.

Name TWO activities users engage in on the internet that could lead to addiction. (2)

7.2 Name ONE way you could secure your laptop to your desk. (1)

7.3 Electricity is an expensive resource.

Name THREE ways in which you can save electricity when making use of electronic devices like laptops or computers. (3)

7.4 Social engineering has become a real threat to computer users today.

7.4.1 Briefly explain what *social engineering* is. (1)

7.4.2 Give TWO precautions you can take to prevent becoming a victim of a social engineering attack via e-mail. (2)

7.5 Spyware is becoming a huge problem for computer users.

What is the aim of spyware? (1)
[10]

QUESTION 8: SOLUTION DEVELOPMENT

8.1 Some of the applications typically used in a small business are:

- Spreadsheet application
- Word processing application
- Database application
- E-mail software
- Web browser software

Choose TWO of the applications from the list above and state the use or function of each of these two applications in a small business. (2)

8.2 Study the spreadsheet below and answer the questions that follow.

	A	B
1	Prizes for the Questionnaire Project	
2		
3	Item	Value
4	7" Tablet	2500,50
5	Notebook Computer	3900,95
6	Digital Camera	8500,20
7	Total	0,00

8.2.1 Suggest a change to the formatting of **cells B4:B7** to automatically display the 'R' symbol for each value. (1)

8.2.2 The screenshot above shows a result of 0.00 in **cell B7** for a correct function that was entered as **= SUM(B4:B6)**.

How must the spreadsheet be changed to obtain the correct result from the function? (2)

8.2.3 Suggest ONE way in which the formatting can be changed to make it easier to read or interpret the spreadsheet. (1)

8.3 Briefly explain how to check whether there is enough space on a flash disk to save a file of 2 GB. (1)

8.4 You have seen that a word processing document can be saved as a text file or as a word processing file.

Give TWO differences between a text file (.txt) and a file saved as a word processing document (doc). (2)

- 8.5 You are working on a confidential document and would like to ensure that others, who have access to his computer, do not read it.

Briefly explain TWO ways how you could do this. (2)

- 8.6 You have set up a database of your regular customers. An extract from the customer table is shown below:

Account	Name	Address	Cellphone	email
13	Jerry Spoons	132 Main Road, Kinross	854123332	jspoon@mweb.co.za
14	Sibusiso Nkosi	14 Toulouse Drive, Evander	824157598	sbunkosi@telkom.net
12	Joos van der Mer	13 Geelsingel, Secunda	832147581	jvdmerwe@mweb.co.za
16	Belinda Webb	10 Smit Street, Braamfontei	835961789	belinda@worx.co.za
26	Peet Riet	13 Kilroy Lane, Rietspruit	821247895	sommerpeet@lantic.co.za

- 8.6.1 When the cellphone numbers are entered into the database table, the zero at the beginning simply disappears.

Explain the likely cause of this problem and suggest how it could be overcome. (2)

- 8.6.2 The entire address of each customer has been stored in one field. Give TWO reasons why this is not a desirable approach. (2)

[15]

TOTAL SECTION B: 75

SECTION C: INTEGRATED SCENARIO**QUESTION 9**

Your school is hosting a computer fair in the school hall. The organiser has asked you to help with the exhibitions. All the computers will be linked in a network to the server at the information desk. Visitors will have an opportunity to interact with the equipment and to purchase items that are on sale.

9.1 The value of ICT in the workplace needs to be promoted at the fair.

Give TWO general advantages of using computers in business, apart from their usefulness in communication. (2)

9.2 Various types of servers and portable computers will be on show.

9.2.1 Give TWO advantages of using a *proxy* server, apart from the general function of any server in a network. (2)

9.2.2 Give TWO disadvantages of portable computers over desktop machines, apart from any cost-related issues. (2)

9.3 The stands of the exhibitors need to be networked to each other, and also need to have an internet connection.

9.3.1 Give TWO advantages of connecting this network wirelessly rather than by using cables. (2)

9.3.2 A *hotspot* will be set up to provide internet connectivity.

Explain what a *hotspot* is and name the wireless technology associated with a hotspot. (2)

9.4 It is important for exhibitors to install software on their computers to protect them against *malware*, especially as the computers will be networked.

9.4.1 Briefly explain how criminals trick people into installing a Trojan program on their computer. (2)

9.4.2 Give TWO disadvantages of a network, in the context of the fight against malware. (2)

9.4.3 After installing anti-malware software, one of the exhibitors found that several files on his hard drive had been *quarantined*.

Briefly explain what '*quarantined*' means in this context. (2)

9.4.4 Give the general name for the type of software that will allow exhibitors to control which programs can access the internet. (1)

9.5 Various types of input devices will be on show at the fair.

Give ONE specific input device that will increase the efficiency and productivity of each of the following types of user:

9.5.1 Someone who has to convert a large number of hard copies to digital format. (1)

9.5.2 A digital artist (1)

9.6 Multifunction printers and other types of printers will be on show at one of the stands.

9.6.1 Give TWO reasons why a business might wish to purchase a *multifunction* printer. (2)

9.6.2 All new printers are supplied with a CD or DVD containing *driver* software.

Briefly explain the function of a driver. (2)

9.7 Several external hard drives will be on display, but no optical drives will be on display.

Give TWO reasons why CDs and DVDs are not used as much today as they used to be. (2)

[25]

QUESTION 10

- 10.1 The organiser is testing a new office suite but the software still has bugs (errors) and often freezes on his computer.
- 10.1.1 Give the keystroke combination that he can use to close the non-responding application, without having to reboot the computer. (1)
- 10.1.2 Briefly explain the difference between a *patch* and a *service pack* in terms of the role (function) each one plays in keeping software updated. (2)
- 10.2 An exhibitor will be demonstrating video editing software to groups of people in sessions, with 10 to 15 people per session. He needs to obtain a number of large MPEG and AVI files, as well as a program file called VIDMaker.exe, from his friend Hans in Germany.
- 10.2.1 Give TWO reasons, with reference to the scenario, why Hans may decide NOT to send these files as *e-mail attachments*. (2)
- 10.2.2 Suggest TWO suitable output devices that the exhibitor could use to display the video clips to the groups of people, as a normal computer monitor will be too small. (2)
- 10.3 A barcode scanner will be installed at the exit for the purchasing process.
- Give TWO benefits of using a barcode scanner for data entry over using a keyboard. (2)
- 10.4 The organiser wonders whether visitors should be given a *printed document* with details of exhibits at the Fair, or whether they should make use of a *touch screen* computer at the information desk.
- 10.4.1 Give TWO potential benefits of using a touch screen as opposed to a printed document in this situation, besides the fact that paper will be saved. (2)
- 10.4.2 Give ONE print option that can be used to save paper, besides printing on both sides of the paper. (1)
- 10.4.3 Briefly explain what is meant by the term green computing and list TWO ways in which one can practice green computing, besides the fact that paper can be saved. (4)

- 10.5 Skype is a popular software package that uses VoIP technology.
- 10.5.1 Explain in your own words what VoIP allows you to do. (2)
- 10.5.2 Give THREE disadvantages of using VoIP software, besides the fact that an internet connection is needed. (3)
- 10.5.3 Give TWO advantages of cloud computing, besides the fact that you can use the software wherever you have an internet connection. (2)
- 10.6 Give TWO features that are available in a database program like Access, that can help minimise (reduce) the number of data entry mistakes. (2)

[25]

TOTAL SECTION C: 50
GRAND TOTAL: 150



Province of the
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**NATIONAL
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GRADE 11

NOVEMBER 2020

**COMPUTER APPLICATIONS TECHNOLOGY P2
MARKING GUIDELINE
(EXEMPLAR)**

MARKS: 150

This marking guideline consists of 14 pages.

SUGGESTIONS AND RECOMMENDATIONS TO MARKERS

- Revisit the questions and the marking guideline frequently during the marking session.
- It is advisable to read the questions frequently (and re-read) together with the candidate's response to check that it correlates, so that you are not misled by the candidate's statement/answers.
- Be careful not to focus on keywords or general statements, but rather read the entire answer. If in doubt, read the entire answer and then the question paper and the marking guideline.
 - Ask yourself or your senior marker if the response could 'fit' into the marking guideline before allocating the correct marks to the candidate.
 - Accept correct answers that are expressed differently, e.g. the marking guideline states 'slow' and candidate responds with 'not fast'.
- Beware of overlapping answers to a specific question. In general, ONE mark is awarded per fact.
- Do not choose answers on the candidate's behalf. Where a question requires a candidate to LIST or NAME/STATE: mark the first number of instances required, e.g. the first TWO facts if the candidate presented in paragraph format.
- Question requiring longer answers must be regarded as a single unit. Marks can be awarded if correct statements are found if correct statements are found anywhere in the paragraph.

SECTION A: SHORT QUESTIONS**QUESTION 1: MULTIPLE-CHOICE**

1.1	C ✓	(1)
1.2	A ✓	(1)
1.3	B ✓	(1)
1.4	D ✓	(1)
1.5	D ✓	(1)
1.6	A ✓	(1)
1.7	B ✓	(1)
1.8	A ✓	(1)
1.9	D ✓	(1)
1.10	C ✓	(1)
		[10]

QUESTION 2: MATCHING ITEMS

2.1	H ✓	(1)
2.2	E ✓	(1)
2.3	K ✓	(1)
2.4	G ✓	(1)
2.5	A ✓	(1)
2.6	L ✓	(1)
2.7	D ✓	(1)
2.8	J ✓	(1)
2.9	B ✓	(1)
2.10	F ✓	(1)
		[10]

QUESTION 3: TRUE/FALSE

3.1	True ✓	(1)
3.2	False – Footer ✓	(1)
3.3	False – Shareware ✓	(1)
3.4	False – Radio button ✓	(1)
3.5	True ✓	(1)
		[5]

TOTAL SECTION A: 25

SECTION B

QUESTION 4: SYSTEMS TECHNOLOGIES

4.1.	4.1.1	Core i5 ✓ (Note to marker: Accept 'i5')	1	1
4.2	4.2.1	The size/measurement ✓ of the display/monitor/screen	1	3
	4.2.2	Resolution ✓ (Note to marker: Accept any answer that implies resolution, e.g. horizontal and vertical pixels.)	1	
	4.2.3	High definition/high density ✓	1	
4.3	(Temporarily) holds/stores the data and program/instructions ✓ the computer/CPU is working with at a given moment. ✓ (Note to marker: Do not accept reference to performance. Do not accept 'stores data' on its own if the answer does not refer to the temporary nature of RAM.)		2	2
4.4	4.4.1	Windows ✓ 10	1	2
	4.4.2	Accept any Linux/Android option ✓ e.g. Ubuntu, Debian, Arch, Fedora, Red Hat, Knoppix, Kubuntu, Xubuntu and Gentoo, etc. ✓ (Any 1) (Note to marker: Do not accept any cellphone operating systems, e.g. Symbian, BlackBerry, etc.)	1	
4.5	4.5.1	<ul style="list-style-type: none"> Increased speed ✓ No moving parts Consumes less energy Ruggedness/robustness/durability No fragmentation ✓ (Any 1) (Note to marker: Accept any one answer relating to one of the above options.)	1	2
	4.5.2	(Permanently) stores data/information/programs ✓	1	
4.6	Built-in/Part of ✓ the motherboard		1	1
4.7	Storing files that are static ✓ onto a secondary system or onto a DVD ✓ in case you need to restore data if the original data is lost, damaged or destroyed.		2	2
4.8	<ul style="list-style-type: none"> Webcam ✓ Touch pad/touch screen ✓ Microphone Fingerprint reader/biometric input device Memory card reader Pointing stick, etc. ✓ (Any 1) (Note to marker: Do not accept 'mouse' or 'keyboard'.)		2	2

4.9	<ul style="list-style-type: none"> Hardware – Use a microphone ✓ Software – Speech recognition/speech-to-text program ✓ <p><i>(Note to marker: Accept other hardware answers such as eye-tracking devices, blow-suck tube, tongue-activated joystick, mouth stick, footpad, head mouse, etc.)</i></p>	2	2																
4.10	<table border="1"> <tr> <td>4.10.1</td><td> <ul style="list-style-type: none"> UPS ✓ </td><td>1</td><td></td></tr> <tr> <td>4.10.2</td><td> <ul style="list-style-type: none"> Make regular/automatic backups ✓ Restrict access rights to the file/pdf format ✓ Make files read-only Use versions option to save different versions Use passwords (lock) and encryption Save regularly (with confirmation) ✓✓ (Any 2) </td><td>2</td><td>3</td></tr> </table>	4.10.1	<ul style="list-style-type: none"> UPS ✓ 	1		4.10.2	<ul style="list-style-type: none"> Make regular/automatic backups ✓ Restrict access rights to the file/pdf format ✓ Make files read-only Use versions option to save different versions Use passwords (lock) and encryption Save regularly (with confirmation) ✓✓ (Any 2) 	2	3										
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4.11	<table border="1"> <tr> <td>4.11.1</td><td> Web browser ✓ <i>(Note to marker: Do not accept specific examples/brand names such as Google Chrome.)</i> </td><td>1</td><td></td></tr> <tr> <td>4.11.2</td><td> <ul style="list-style-type: none"> E-mail ✓ Chat rooms/online forums (e.g. Moodle, etc.) ✓ Instant messaging (<i>WhatsApp, BBM, SMS, MMS, etc.</i>) VoIP (e.g. <i>Skype, Google+, Google Hangouts</i>)/Video conferencing Social media/networking (e.g. <i>Facebook, Twitter, LinkedIn, MySpace, Pinterest, etc.</i>) ✓✓ (Any 2) </td><td>2</td><td>3</td></tr> <tr> <td>4.11.3</td><td>(Software) piracy ✓</td><td>1</td><td>1</td></tr> <tr> <td>4.11.4</td><td>Uninstaller/Use an appropriate application in the Control Panel ✓ (e.g. Add/Remove Programs/Software)</td><td>1</td><td>1</td></tr> </table>	4.11.1	Web browser ✓ <i>(Note to marker: Do not accept specific examples/brand names such as Google Chrome.)</i>	1		4.11.2	<ul style="list-style-type: none"> E-mail ✓ Chat rooms/online forums (e.g. Moodle, etc.) ✓ Instant messaging (<i>WhatsApp, BBM, SMS, MMS, etc.</i>) VoIP (e.g. <i>Skype, Google+, Google Hangouts</i>)/Video conferencing Social media/networking (e.g. <i>Facebook, Twitter, LinkedIn, MySpace, Pinterest, etc.</i>) ✓✓ (Any 2) 	2	3	4.11.3	(Software) piracy ✓	1	1	4.11.4	Uninstaller/Use an appropriate application in the Control Panel ✓ (e.g. Add/Remove Programs/Software)	1	1		
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4.11.3	(Software) piracy ✓	1	1																
4.11.4	Uninstaller/Use an appropriate application in the Control Panel ✓ (e.g. Add/Remove Programs/Software)	1	1																
			[25]																

QUESTION 5: INTERNET AND NETWORK TECHNOLOGIES

5.1	5.1.1	A network is a collection of computers or computer devices ✓ that are connected. ✓	2	4
	5.1.2	<ul style="list-style-type: none"> • To share hardware ✓ • To share software ✓ • To share/centralise data and information/collaboration/improve collaboration • Easier administration/to implement security measures • To share internet access, etc. ✓✓ (Any 2) <p><i>(Note to marker: Do not accept any reference to gaming.)</i></p>	2	
5.2		<ul style="list-style-type: none"> • NIC's ✓ • Computers/Computing devices ✓ • Switch/Router/Gateway/Hub/Bridge ✓ • Wireless Access Point • Communication medium/cables/wireless ✓✓✓ (Any 3) 	3	3
5.3		<ul style="list-style-type: none"> • Client computer uses resources ✓ • Network server provides resources ✓/Server is not used as a workstation 	2	2
5.4		<ul style="list-style-type: none"> • Provides internet access/a connection to the internet/data bundles ✓ • Offers internet services such as e-mail, instant messaging, etc. ✓ • Offers technical support related to their services • Most ISPs offer a filtering service to avoid spam, viruses, etc. • Some ISPs regulate the services to which members have access • Provide one local telephone number for Internet connections • Web hosting services • Domain registration • Online storage, etc. ✓✓ (Any 2) <p><i>(Note to marker: Do not accept only the expansion of the abbreviation ISP.)</i></p>	2	2
5.5		<p>The World Wide Web is a service ✓ that runs on the internet and consists of a vast collection of hyperlinked, interactive documents ✓ stored on computers all over the world.</p> <p><i>(Note to marker: Do not accept 'internet' as an answer on its own.)</i></p>	2	2
5.6		<ul style="list-style-type: none"> • The user uses a PIN to identify him or herself, usually accompanied by a password known only to the user (security questions) ✓ • Transactions take place on a secure site/(yellow lock appears/https)/Encrypted ✓ • The bank sends an SMS with a code to be entered for the transaction to proceed/One-time password • On-screen keypad (to prevent access by keyloggers) • Automatically log off ✓✓ (Any 2) 	2	2
				[15]

QUESTION 6: INFORMATION MANAGEMENT

6.1	6.1.1	A brief summary of the report. ✓	1	
	6.1.2	<ul style="list-style-type: none"> To give an outline/overview of what the report aims to achieve. ✓ To give background information about the topic. To give a brief idea of what the researcher did/research process was to solve the problem. ✓ (Any 1) 	1	2
6.2		<ul style="list-style-type: none"> The author is not an authority on the topic ✓ The information is too old ✓ The information has bias The information is very limited and does not adequately cover the topic ✓✓ (Any 2) 	2	2
6.3	6.3.1	<ul style="list-style-type: none"> Limited options may lead to skewed data ✓ Respondent may want to give an answer not in the list / Limits possible responses that could be given by the respondent Options may be biased towards a point of view ✓ (Any 1) 	1	1
	6.3.2	<ul style="list-style-type: none"> Easier to process responses in a spreadsheet/database ✓ Can read all responses/Bad handwriting is not an issue ✓ Easy to share data with others/publish dataset Data validation of responses can be done ✓✓ (Any 2) 	2	2
6.4		<ul style="list-style-type: none"> The title obscures the content of the graph/The title may make it difficult to see detail/interpret the graph ✓ The graph shows a big difference in the bars but values are very close ✓ The combined percentages go well beyond 100%/It is not obvious that the graph displays parts of a whole/A pie chart would be more suitable ✓ The Y-axis starts at 80% rather than 0%/Incorrect upper and lower limits of the Y-axis The legend has a meaningless label ✓✓✓ (Any 3) 	3	3
				[10]

QUESTION 7: SOCIAL IMPLICATIONS

7.1	<ul style="list-style-type: none"> • Social networking/Constantly checking messages ✓ • Checking profiles of others ✓ • Online gaming • Watching inappropriate content • Online shopping • Watching YouTube videos • Online dating ✓✓ (Any 2) 	2	2
7.2	Making use of Kensington locks ✓	1	1
7.3	<ul style="list-style-type: none"> • Switch devices off when not in use. ✓ • Make use of energy star appliances. ✓ • Buy LED monitors which consumes less power. ✓ • Adjusting the brightness of the screen for less power consumption. • Putting your computer in SLEEP/HIBERNATION mode when not in use for some time. ✓✓✓ (Any 3) 	3	3
7.4	7.4.1 Social engineering is manipulating people to get access to their secrets, their data or their physical computers or premises. ✓	1	1
	7.4.2 <ul style="list-style-type: none"> • Scan e-mail attachments before opening them. ✓ • Do not open e-mail messages if you do not know the sender. ✓ • Never click on links in e-mails if you do not trust the source. • Do not believe every e-mail message. THINK before you act. • Do not trust strangers around data. • Be suspicious and skeptical of offers that need something from you before you can access them. ✓✓ (Any 2) 	2	2
7.5	Software that tries to monitor and track the way you use your computer and the information is then sent off to third parties without the user's consent. ✓	1	1
			[10]

QUESTION 8: SOLUTION DEVELOPMENT

8.1	<ul style="list-style-type: none"> • Spreadsheet – calculations/invoices/orders/statements of accounts, financial statements, etc. ✓ • Word processing application – correspondence, contracts, minutes of meetings, etc. ✓ • Database applications – employee data, stock data, suppliers'/debtors'/creditors' data, etc. • E-mail software – communication • Web browser software – internet searches ✓✓ (Any 2) <p><i>(Note to marker: Marks are not allocated to the applications but to the use of the application. Accept any valid response related to a small business.)</i></p>		2	2
8.2	8.2.1	Formatting of cells set to Currency/Accounting format ✓	1	4
	8.2.2	<ul style="list-style-type: none"> • Remove decimal commas from cells B4:B6 ✓ • Replace with decimal points ✓ <p><i>(Note to marker: Accept any response related to the fact that some computers may have been set up to accept a decimal comma so for example, an incorrect formula was used.)</i></p>	2	
	8.2.3	<ul style="list-style-type: none"> • Insert border lines between the cells ✓ • Make the headings bold/larger font/use appropriate font sizes • Use highlighting/shading, etc. ✓ (Any 1) 	1	
8.3	<ul style="list-style-type: none"> • Check the Properties window for the flash disk to see the amount of free space available. ✓ • In My Computer the free space will be shown below the identifying drive letter. ✓ (Any 1) 		1	1
8.4	Text files <ul style="list-style-type: none"> • Contains plain text with no formatting or images or objects ✓ • No metadata ✓ • Smaller • Can be opened by many different applications 	Document files <ul style="list-style-type: none"> • Stores text as well as formatting, images or objects. • Stores metadata • Takes up more space • Generally tied to one application/program and don't need access to the original program ✓✓ (Any 2) 	2	2

8.5	<ul style="list-style-type: none"> • Use a password ✓ • Encrypt the document ✓ 		2	2
8.6	8.6.1	<u>CAUSE</u> Numeric field was used and leading zero is dropped ✓ <u>SOLUTION</u> Make it a text data type ✓	2	4
	8.6.2	<ul style="list-style-type: none"> • Cannot access any part of address alone (e.g. city) for queries ✓ • Cannot sort by town ✓ 	2	
				[15]
	TOTAL SECTION B:			75

SECTION C: INTEGRATED SCENARIO

QUESTION 9

9.1	<ul style="list-style-type: none"> Efficiency / cost savings (computers save time / labour / resources) ✓ Accuracy (can achieve 100%) ✓ Reliability (unlike human beings who get tired, sick, bored, etc.) ✓✓ (Any 2) <p><i>(Note to marker: Accept specific examples, but only related to use of computers in <u>business</u>)</i> (NOT: usefulness in communication (part of question))</p>	2	2
9.2	9.2.1 <ul style="list-style-type: none"> Allows users to connect to the internet / share a common internet connection ✓ Can speed up Internet access (by storing / caching web pages on disk) ✓ Central point of control for implementing anti-malware security measures Can filter / restrict access to specific sites Can be used to log internet usage, etc. ✓✓ (Any 2) <p><i>(Note to marker: Do not accept answers relating to the <u>general function</u> of a server.)</i></p>	2	4
	9.2.2 <ul style="list-style-type: none"> More easily stolen ✓ More difficult / impossible to upgrade ✓ More fragile / easily damaged (due to its portability) Dust build-up can be a problem – must disassemble laptop to clean it Input devices awkward to use and not designed for extensive data entry – can contribute to RSI Relatively small screen sizes can be a disadvantage for certain categories of users, e.g. designers, artists, gamers ✓✓ (Any 2) <p><i>(Note to marker: Do not accept answers relating cost issues.)</i></p>	2	
9.3	9.3.1 <ul style="list-style-type: none"> Easier to add or move computers (as the network points are not fixed – no cabling) ✓ Easier to install the network (as cables do not need to be laid) ✓ Adds mobility for users with mobile devices (such as smartphones and tablets) No cabling to trip over or get in the way, etc. ✓✓ (Any 2) 	2	4
	9.3.2 <p>A hotspot is an area where you can obtain wireless access to the Internet ✓</p> <p>Wi-Fi ✓</p>	2	

9.4	9.4.1	Disguise the (destructive) program ✓ as a useful application✓	2	7
	9.4.2	<ul style="list-style-type: none">Malware can use the network as a medium to spread and infect other computers ✓Malware can spread quickly ✓	2	
	9.4.3	The virus / infected file is placed in an area of the disk ✓ where it cannot infect other files ✓	2	
	9.4.4	Firewall (software) ✓	1	
9.5	9.5.1	<ul style="list-style-type: none">Automatic sheet feeding scanner ✓Multifunction printerScan mouseSmartphone with a scanning appDevice with sheet feeder ✓ (Any 1)	1	2
	9.5.2	Drawing / graphics tablet (e.g. Wacom, Turcom tablets) ✓	1	
9.6	9.6.1	<ul style="list-style-type: none">It can also be used for scanning, copying, faxing etc. ✓Could be used as back-up printer, in case other printer fails/runs out of toner ✓Potentially better (than e.g. laser printer) for high quality colour photos ✓✓ (Any 2)	2	4
	9.6.2	To allow the computer (operating system) to communicate ✓ with / use hardware devices ✓ <i>(Note to marker: Accept equivalent statements, e.g. 'to make hardware work correctly with O/S, 'to translate instructions between the O/S and the device')</i>	2	
9.7	<ul style="list-style-type: none">Slow to read / write data ✓Small storage capacity ✓Easily scratched / damagedCannot easily manipulate or change written data (optical media may be read-only) ✓✓ (Any 2) <i>(Note to marker: Do not accept arguments 'have been replaced by flash drives / portable HDDs', or 'other portable devices do not have optical drives', as these are in effect restatements of the question. Responses must relate to suitability of the <u>media itself</u>.)</i>		2	2
				[25]

QUESTION 10

10.1	10.1.1	Ctrl-Alt-Delete (PC, Windows) ✓ Command-Option-Esc (Mac, OS X)	1	3
	10.1.2	Patch: update to fix a specific 'bug' / security issue in software ✓ Service pack: (Scheduled) update to fix ALL 'bugs' / security issues (often including new / improved features since initial release of software and larger than patches) ✓	2	
10.2	10.2.1	<ul style="list-style-type: none"> Most e-mail systems limit the size of attachments ('large MPEG and AVI files') ✓ Some e-mail systems block attachments with potentially dangerous file extensions ('VIDMaker.exe') ✓ E-mail not always secure (Hans may not wish other users to intercept / access the file attachments) E-mail can be slower (than FTP), especially for large attachments ✓✓ (Any 2) <p><i>(Note to marker: Do not accept restrictions or inefficiency related to <u>number</u> of recipients)</i></p>	2	4
	10.2.2	<ul style="list-style-type: none"> (large) TV screen ✓ Data projector ✓ Interactive whiteboard ✓✓ (Any 2) <p><i>(Note to marker: Do not accept computer monitor.)</i></p>	2	
10.3		<ul style="list-style-type: none"> More accurate / eliminate human input error ✓ Faster ✓ <p><i>(Note to marker: Do not accept answers related to POS systems (stock control etc.) – only barcode scanner.)</i></p>	2	
10.4	10.4.1	<ul style="list-style-type: none"> Promotes green computing / saves paper ✓ Easier for exhibitors to add / update / correct details ✓ Can provide multimedia content Interactive (can give direct and immediate feedback to exhibitors) Can be easy to navigate, search content, etc. ✓✓ (Any 2) 	2	
	10.4.2	<ul style="list-style-type: none"> Print two (or more) pages per single sheet of paper. ✓ Select which pages to print (i.e. not always necessary to print all pages in range). Change paper orientation / size / margins. ✓ (Any 1) <p><i>(Note to marker: Do not accept e.g. electronic circulation of documents ('paperless office') / not printing e-mail etc., as these are not <u>printing options</u>)</i></p>	1	

	10.4.3	Green computing is the term used to describe using computers ✓ in a way that is sensitive to the environment ✓ ANY TWO: Recycle old computers ✓ Use energy compliant monitors ✓ Use auto power-down facilities Use printer cartridge refilling	2	
			2	7
10.5	10.5.1	VoIP allows you to make telephone (i.e. voice) calls ✓ over computer networks (including the internet) ✓	2	
	10.5.2	<ul style="list-style-type: none"> Both users need to use the same software ✓ Must purchase credits to call cellphones and landline numbers ✓ Call quality may be poor (if slow internet connection) ✓ Can be expensive / use up cap (especially if video is used) ✓✓✓ (Any 3) <p><i>(Note to marker: Do not accept Internet requirement)</i></p>	3	
	10.5.3	<ul style="list-style-type: none"> Software always up to date ✓ Do not need to download / install software to access the resources ✓ Software does not take up space on local device (stored on internet servers) Local device can be less powerful (internet servers provide required power) Can work with other users on the same document at the same time Files are backed up by system automatically Files can be synchronised ('synched') between devices / always have latest version Data is not lost if your device is stolen / damaged Easier to share data with others ✓✓ (Any 2) <p><i>(Note to marker: Do not accept that the software can be used wherever there is an internet connection.)</i></p>	2	7
10.6		<ul style="list-style-type: none"> Input mask ✓ Default value ✓ Validation rule (and text) Combo Box / List Box Primary key (to ensure no duplicates or blanks) Index field property (set 'Yes (No Duplicates)' to prevent duplicates) ✓✓ (Any 2) 	2	2
				[25]
		TOTAL SECTION C:		50
		GRAND TOTAL:		150