



Province of the
EASTERN CAPE
EDUCATION

**NATIONAL
SENIOR CERTIFICATE**

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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4.11.4	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>(Note to marker: Do not accept any reference to gaming.)</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>(Note to marker: Do not accept only the expansion of the abbreviation ISP.)</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>(Note to marker: Do not accept 'internet' as an answer on its own.)</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	<p><u>CAUSE</u> Numeric field was used and leading zero is dropped ✓</p> <p><u>SOLUTION</u> Make it a text data type ✓</p>	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 media itself.)</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 of recipients</u>)</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