

# MARKING GUIDELINES

EXAMINATION		NATIONAL SENIOR CERTIFICATE	
GRADE		12	
DATE		NOVEMBER 2025	
SUBJECT		COMPUTER APPLICATIONS TECHNOLOGY	
PAPER		2	
MARK TOTAL		150	
DURATION (HOURS)		3	
NUMBER OF PAGES		17	



SOUTH AFRICAN COMPREHENSIVE ASSESSMENT INSTITUTE  
SUID-AFRIKAANSE KOMPREENSIEWE ASSESSERINGSINSTITUUT

## FINAL APPROVED MARKING GUIDELINES

DATE OF MEETING	
UMALUSI MODERATOR	
CHIEF MARKER	
INTERNAL MODERATOR	



## MARKING GUIDELINES

- Revisit the questions and the marking guideline frequently during the marking session.
- It is advisable to read the question 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 statements/answers.
- Do not 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 marking guidelines.
  - Ask yourself or the IM or CM if the response could 'fit' into the marking guidelines before allocating the correct marks to the candidates:
    - For example, the marking guidelines state 'cheap' and the learner responds with 'less expensive'; and 'delete' and the candidate responds with 'erase'/'wipe'/'remove' etc.
- Beware of overlapping answers to a specific question. In general, ONE mark is awarded per fact.
- All marking should be done in **red pen**. Internal moderation is done in **black pen**, moderation by SACAI is done in **green pen**, while Umalusi moderates in **purple pen**.
- Marks should be indicated with a tick "✓" directly above the relevant keyword. In the case of two marks per fact, two ticks "✓ ✓" should be indicated. Do NOT place the tick at the end of the line (sentence) or paragraph. Mark wrong answers with a cross (X) or underline wrong sentences.

## SECTION A

QUESTION 1: MATCHING ITEMS			
1.1	F	✓	(1)
1.2	L	✓	(1)
1.3	I	✓	(1)
1.4	P	✓	(1)
1.5	D	✓	(1)
1.6	S	✓	(1)
1.7	O	✓	(1)
1.8	E	✓	(1)
1.9	G	✓	(1)
1.10	M	✓	(1)
			<b>[10]</b>

QUESTION 2: MULTIPLE CHOICE			
2.1	B	✓	(1)
2.2	B	✓	(1)
2.3	A	✓	(1)
2.4	B	✓	(1)
2.5	D	✓	(1)
			<b>[5]</b>

### QUESTION 3: TRUE OR FALSE

Note to marker: Do not award a mark if the sentence is changed, only the underlined term may be changed if the candidate indicated that the statement is false.

3.1	False, <u>tabbed</u> browsing/multiple tabs	✓	(1)
3.2	False, <u>m</u> -Learning	✓	(1)
3.3	False, <u>5</u> IR	✓	(1)
3.4	True	✓	(1)
3.5	False, <u>URL</u> shorteners	✓	(1)
3.6	True	✓	(1)
3.7	False, <u>Wiki</u>	✓	(1)
3.8	False, <u>Alt</u> +F9	✓	(1)
3.9	True	✓	(1)
3.10	True	✓	(1)
			<b>[10]</b>

**TOTAL SECTION A: [25]**

## SECTION B

QUESTION 4: SYSTEM TECHNOLOGIES			
4.1	<p><b>Incomplete updates</b></p> <ul style="list-style-type: none"> <li>Corrupted system files/loss of data/ the installation may be incomplete.</li> <li>May leave the system exposed to security threats, as critical security fixes may not be applied.</li> <li>The operating system may encounter errors during the startup process/ can result in system instability/freezing, crashing, or unresponsive system</li> </ul> <p>Any two ✓ ✓</p>		(2)
4.2	<p><b>Type of connection</b></p> <p>USB type C/USB-C ✓</p>		(1)
4.3	<p><b>Printer - cloud integration</b></p> <ul style="list-style-type: none"> <li>Users can print documents from cloud-based storage services (Google Cloud Print, Dropbox, Microsoft OneDrive) directly to the printer.</li> <li>Users can initiate print jobs even when they are not physically near the printer/on the same network.</li> <li>Cloud printing is easily accessible from any internet-connected device (smartphones, tablets, laptops, desktops).</li> <li>Printing can be done without device-specific drivers.</li> </ul> <p>Any two ✓ ✓</p>		(2)
4.4	4.4.1	<p><b>What is a beta version?</b></p> <p>The beta version of a program is a pre-release version ✓ that developers make available (to a limited audience) for testing and feedback. ✓</p> <p>Note: Award one mark that indicates that it is a pre-release and the second mark to indicate that it is used for testing the software.</p>	(2)
	4.4.2	<p><b>Beta version compatibility</b></p> <ul style="list-style-type: none"> <li>Processor (CPU)</li> <li>Graphics Card (GPU)</li> <li>Memory (RAM)</li> <li>Storage Drive (HDD/SSD)</li> <li>Networking (Ethernet/Wi-Fi)</li> </ul> <p>Any two ✓ ✓</p>	



4.5	4.5.1	<p><b>More people use web-based applications</b></p> <ul style="list-style-type: none"> <li>• Web-based applications are accessible from any device (with an internet connection)</li> <li>• The application is used/viewed in any web browser</li> <li>• Require no installation</li> </ul> <p>Any two ✓ ✓</p>	(2)
	4.5.2	<p><b>Update web-based applications</b></p> <p>Never ✓ because updates and new features can be deployed from where the application is stored or executed. ✓</p> <p>Note: Give only one mark if a candidate indicates that the browser may need to be updated.</p>	(2)
4.6	<p><b>Hardware factors that influence CPU processing</b></p> <ul style="list-style-type: none"> <li>• Internal clock/clock speed (Frequency/GHz): The rate at which the processor's internal clock executes instructions per second.</li> <li>• Number of cores: More cores means that more instructions can be executed.</li> <li>• Cache size: A larger cache can enhance performance by reducing the time the processor spends waiting for data/instructions/more data and instructions can be stored.</li> </ul> <p>Any two ✓ ✓</p> <p>Note: Award the mark if the candidate gives the names/terms OR describes the CPU hardware factor that influences the CPU performance.</p>		(2)
4.7	<p><b>Adware used for malicious purposes</b></p> <ul style="list-style-type: none"> <li>• Adware often exploits vulnerabilities in a user's system or software to gain access/install malware.</li> <li>• Collect sensitive user data.</li> <li>• Some adware takes control of a user's browser settings, leading to browser hijacking.</li> <li>• Adware often collects user information, such as browsing habits, search history or personal data.</li> <li>• By displaying advertisements that may lead to harmful websites.</li> <li>• Slowing down the system's performance.</li> </ul> <p>Any two ✓ ✓</p> <p>Note: Award only one mark if the candidate indicates that Adware can be a means for distributing other types of malware.</p>		(2)

4.8	4.8.1	<b>Components connected to DIMM slots</b> Connect the RAM/memory ✓	(1)
	4.8.2	<b>Components connected to ZIF socket</b> Connect the CPU/processor ✓	(1)
	4.8.3	<b>Components connected to SATA slot</b> <ul style="list-style-type: none"> <li>• Hard drive</li> <li>• SSD</li> <li>• CD/DVD drive</li> </ul> Any one ✓	(1)
	4.8.4	<b>Components connected to HDMI</b> Connecting a monitor/TV/Audio and visual device ✓	(1)
4.9	<b>Hardware components that influence image quality</b> Graphics card/GPU ✓ Screen/monitor ✓  Note: Do not award mark for connection types mentioned.		(2)
4.10	<b>Browsing history and cache</b> <ul style="list-style-type: none"> <li>• Loss of autocomplete and suggestions.</li> <li>• Loss of saved passwords and form data.</li> <li>• Loss of preferences and personalised content.</li> <li>• Loss of offline access (certain data is stored in the cache).</li> <li>• Higher bandwidth usage (re-downloading resources from websites).</li> <li>• Search engines use your search history to provide more accurate suggestions.</li> <li>• Clearing browser data might reset settings and configurations for plugins.</li> </ul> Any two ✓ ✓  Note: Do not award marks for losing browsing history.		(2)
			<b>[25]</b>



<b>QUESTION 5: NETWORK AND INTERNET TECHNOLOGIES</b>			
5.1	5.1.1	<p><b>NFC description</b></p> <p>NFC (Near Field Communication) is a wireless (communication) technology ✓ that allows devices to exchange data/communicate over very short distances ✓</p>	(2)
	5.1.2	<p><b>NFC vs Bluetooth</b></p> <p>Connection Distance: ✓</p> <p>NFC: Operates at a very short range, (within 10 centimetres/4 inches)</p> <p>OR</p> <p>Bluetooth: Has a much longer range, (generally up to 10 meters.)</p> <p><b>AND</b></p> <p>Transfer Speed: ✓</p> <p>NFC: Has a slower data transfer speed</p> <p>OR</p> <p>Bluetooth: Has much faster transfer speeds</p>	(2)
5.2	<p><b>Prevent inappropriate websites</b></p> <ul style="list-style-type: none"> <li>• Content filtering software.</li> <li>• Set firewall configuration/router/DNS controls to restrict access to certain websites or types of content.</li> <li>• Set safe search settings in browser.</li> <li>• Enable parental controls on devices and internet services.</li> </ul> <p>Any one ✓</p> <p>Note: Accept only answers that will <u>prevent</u> accessing websites. Do not accept answers like 'use monitoring programs to track internet usage'.</p>		(1)
5.3	<p><b>Device identification and purpose</b></p> <ul style="list-style-type: none"> <li>• Router: ✓ Makes internet connection possible/makes communication between different networks possible. ✓</li> <li>• Switch: ✓ Other devices connect to this one device. ✓</li> </ul>		(4)
5.4	<p><b>Communication medium (undersea cable)</b></p> <p>Fibre optic ✓</p>		(1)



5.5	5.5.1	<p><b>Advantages of cloud backup</b></p> <ul style="list-style-type: none"> <li>• Cloud Backup often includes automatic, scheduled backups (which happen in the background without any manual action).</li> <li>• Cloud Backup typically includes version control, which means you can recover previous versions of files.</li> <li>• Cloud Backup is optimised for fast and efficient recovery of large amounts of data.</li> <li>• Cloud Backup services typically offer more robust encryption and security.</li> </ul> <p>Any two ✓ ✓</p>	(2)
	5.5.2	<p><b>Cloud storage vs cloud backup</b></p> <p>Cloud Backup: Cloud backup is a type of cloud storage specifically used to <b>automatically</b> copy and save your data from a device to the cloud for recovery. ✓</p> <p>Cloud Storage: Cloud storage refers to saving data (like documents, photos, or videos) on remote servers accessed via the internet. ✓</p>	(2)
5.6	<p><b>Page not found</b></p> <ul style="list-style-type: none"> <li>• The developer might have removed or renamed a webpage without setting up a proper redirect.</li> <li>• The developer may have created or updated internal or external links with incorrect or misspelled URLs.</li> <li>• If the developer has faulty code or broken links/hyperlinks.</li> </ul> <p>Any one ✓</p> <p>Note: The answer must point to a broken link/something that the developer did.</p>		(1)
<b>[15]</b>			



<b>QUESTION 6: INFORMATION MANAGEMENT</b>			
6.1	6.1.1	<p><b>Radio button</b></p> <p>For questions where respondents can choose only one option from a list. ✓</p> <p>Note: Accept an appropriate example. The example must indicate that only one option can be chosen.</p>	(1)
	6.1.2	<p><b>Checkboxes</b></p> <p>For questions allowing multiple selections from a list of options. ✓</p> <p>Note: Accept an appropriate example. The example must indicate that multiple options can be chosen.</p>	(1)
	6.1.3	<p><b>Dropdown list</b></p> <p>Options are presented as a <u>list of options</u>. ✓</p>	(1)
	6.1.4	<p><b>Date Pickers</b></p> <p>To select dates. ✓</p>	(1)
6.2	<p><b>Database queries beneficial in the analysis of data</b></p> <ul style="list-style-type: none"> <li>Retrieve/filter specific data from a database based on defined criteria.</li> <li>Sorting of data.</li> <li>Can perform calculations (averages, totals, counts etc.).</li> <li>Can group results of queries.</li> <li>Can show or hide results of queries.</li> </ul> <p>Any two ✓ ✓</p>		(2)
6.3	<p><b>Chart elements</b></p> <ul style="list-style-type: none"> <li>Data values on bars</li> <li>Legend</li> <li>Gridlines</li> <li>Trendline, mean or average line</li> </ul> <p>Any two besides form labels and a title ✓ ✓</p>		(2)
6.4	<p><b>Bibliography vs citation</b></p> <p>Bibliography: A list of all the sources you looked at while researching, even if you didn't mention (reference) them in your work. ✓</p> <p>Citation: A list of only the sources you directly cited (give credit to the original author) in your work. ✓</p>		(2)
			<b>[10]</b>



<b>QUESTION 7: SOCIAL IMPLICATIONS</b>			
7.1	7.1.1	<b>Quotation marks search</b> The result would contain an exact match of the phrase/words enclosed in quotation marks. ✓	(1)
	7.1.2	<b>Minus search</b> The word with the minus in front of it will not be included in the results returned. ✓	(1)
7.2	<b>Shareware – product key</b> Yes, ✓ if you purchase the product (after your trial period has expired) you may be prompted to enter a product key. ✓  Note: Award mark for YES only if the motivation is correct.		(2)
7.3	<b>Phishing vs Smishing</b> Phishing typically occurs through email. ✓ Smishing, (short for "SMS phishing) involves using text messages (SMS). ✓		(2)
7.4	7.4.1	<b>Keylogger explanation</b> A keylogger is a type of software or hardware designed to record every keystroke. ✓ It operates covertly/without the user's knowledge. ✓  Note: Do not award mark if the candidate states that data is collected as this is given in the next question. Candidates must mention that keystrokes are recorded.	(2)
	7.4.2	<b>Malicious intentions of keyloggers</b> <ul style="list-style-type: none"> <li>• Stealing sensitive Information</li> <li>• Identity theft</li> <li>• Unauthorised access</li> <li>• Blackmail</li> <li>• Spreading malware</li> </ul> Any one ✓	(1)
7.5	<b>Consequences if email program accepts .exe</b> These files can contain malicious software (such as viruses, trojans, worms or ransomware etc.) ✓		(1)
			<b>[10]</b>



<b>QUESTION 8: SOLUTION DEVELOPMENT</b>			
8.1	<b>Email feature not displaying recipients.</b> Bcc ✓		(1)
8.2	8.2.1	<b>Functions used for item code</b> Left ✓ Randbetween ✓	(2)
	8.2.2	<b>VLOOKUP parameters</b> G2: The item you are looking for. ✓ False: Will return an exact match of the item you are looking for. ✓	(2)
	8.2.3	<b>Word wrap</b> B1 ✓	(1)
8.3	8.3.1	<b>Medium date</b> 31-Jan-17 ✓	(1)
	8.3.2	<b>Control for Grade field</b> The filter feature ✓	(1)
	8.3.3	<b>Query</b> All the fields will be displayed ✓ because the date is in the OR criteria and all dates in the table will be included in the specified date. ✓	(2)
	8.3.4	<b>Query</b> Surname – Name: Like "B*" ✓ Grade – Graad: 10 ✓  Note: Award mark for Surname criteria if 'Like' is omitted.	(2)
8.4	<b>Purpose of html code snippet</b> When the user clicks on the pic1.jpg link ✓ the webpage Page1.html will be loaded. ✓		(2)
8.5	<b>&lt;p&gt; &lt;/p&gt; and &lt;br&gt;</b> Both these lines/tags will add an empty line in an HTML document. ✓		(1)
			<b>[15]</b>
			<b>TOTAL SECTION B: [75]</b>



## SECTION C: INTEGRATED SCENARIO

QUESTION 9: INTEGRATION			
9.1	9.1.1	<b>Specifications that Computer B processes faster.</b> Processor (Intel Core I7) ✓ Memory (16 GB RAM) ✓	(2)
	9.1.2	<b>Why used at the pay point?</b> The following is included in the specifications: A barcode scanner ✓ Point-of-Sale (POS) ✓	(2)
	9.1.3	<b>Graphics memory of computer A vs computer B</b> Integrated: Shares the system's memory. ✓ Dedicated: Uses its own memory/VRAM (on the graphics card). ✓	(2)
	9.1.4	<b>Multitasking description</b> Multitasking refers to the ability to process multiple tasks/programs ✓ simultaneously. ✓	(2)
	9.1.5	<b>Display ports on new computers</b> <ul style="list-style-type: none"> <li>• DisplayPort/Mini DisplayPort</li> <li>• USB-C</li> <li>• HDMI</li> <li>• DVI</li> </ul> Any two ✓ ✓ Note: Do not accept VGA as an answer.	(2)
9.2	9.2.1	<b>File compression software – reasons</b> Reduce the size of one or more files/store more data in the same amount of space/transfer files more quickly. ✓ Combined many files/folders into one file. ✓	(2)
	9.2.2	<b>File compression software – Examples</b> <ul style="list-style-type: none"> <li>• WinZip - Zip</li> <li>• WinRar – RAR</li> <li>• PeaZip</li> <li>• 7z</li> <li>• TAR</li> <li>• Windows built-in compression</li> <li>• macOS built-in compression</li> </ul> Any one ✓	(1)



9.3	<p><b>Malfunctioning printer</b></p> <p>Software:</p> <ul style="list-style-type: none"> <li>• Outdated, corrupted or incompatible printer drivers.</li> <li>• Bugs in the printer firmware.</li> <li>• Print queue issues.</li> <li>• Conflicts with other software installed on the computer.</li> </ul> <p>Any one ✓</p> <p>Hardware:</p> <ul style="list-style-type: none"> <li>• Connection issues (cabled or wireless).</li> <li>• Physical obstructions like paper jams.</li> <li>• Malfunctioning sensor, motor, or other components.</li> </ul> <p>Any one ✓</p>		(2)
9.4	9.4.1	<p><b>Printer selection</b></p> <p>Set the Konica Minolta 1 as the default printer. ✓</p>	(1)
	9.4.2	<p><b>Printer – document waiting</b></p> <ul style="list-style-type: none"> <li>• It typically indicates that there is a print job in the queue waiting to be processed by the printer.</li> <li>• Another document is being printed/the document is in the print queue.</li> <li>• Printer is Offline.</li> <li>• Printer Error such as a paper jam or low ink.</li> <li>• The print job might have been paused due to some issue.</li> </ul> <p>Any one ✓</p>	(1)
9.5	<p><b>POS – planning for the future</b></p> <ul style="list-style-type: none"> <li>• Analysis of sales trends over time, helping store owners identify patterns.</li> <li>• Customer preferences.</li> <li>• Real-time information on the current stock levels for each product/ Understand what customers are buying.</li> <li>• Identify slow-moving or obsolete stock to make informed decisions on discounts.</li> <li>• Assess the success of marketing and promotional campaigns.</li> <li>• Analyse profit margins to assist in pricing of future items.</li> <li>• The data will identify areas where operational efficiency can be improved.</li> </ul> <p>Any three ✓ ✓ ✓</p> <p>Note: Answers must indicate future planning based on information from the POS.</p>		(3)



9.6	9.6.1	<b>Service pack</b> A collection of updates of bug fixes. ✓	(1)
	9.6.2	<b>Advantage of updating OS</b> <ul style="list-style-type: none"> <li>• Security enhancements/fixes vulnerabilities.</li> <li>• Performance improvements.</li> <li>• Ensures smooth operation with new applications, drivers, and hardware.</li> <li>• Bug Fixes/fixes software glitches and crashes.</li> <li>• Introduce new features.</li> </ul> Any two ✓ ✓	(2)
9.7	<b>Downside to file sharing</b> <ul style="list-style-type: none"> <li>• Sensitive information may be accessed by unauthorised parties.</li> <li>• Unintentional deletions.</li> <li>• If changes are made to a file simultaneously on different devices, conflicts may occur/different versions of a file may exist.</li> <li>• Many file syncing services offer limited free storage, and users may need to pay for additional space.</li> </ul> Any two ✓ ✓ Note: Exclude answers related to internet access.		(2)
			<b>[25]</b>



<b>QUESTION 10: INTEGRATION</b>			
10.1	<p><b>Two-factor authentication</b></p> <p>An employee must:</p> <ul style="list-style-type: none"> <li>• Enter a username/password and enter a pin they receive.</li> <li>• Enter a pin and confirm with a link sent in an email.</li> <li>• Provide biometric authentication and enter a pin.</li> </ul> <p>Any example ✓ ✓</p> <p>Note: One mark for each authentication method.</p>		(2)
10.2	<p><b>Video conferencing and video sharing</b></p> <p>Video conferencing: It can be used to conduct meetings. ✓</p> <p>Video sharing: A recording of the video could be shared with people unable to attend the meeting. ✓</p>		(2)
10.3	<p><b>Network throttling and network shaping</b></p> <p>Network throttling: To reduce the overall speed of an internet connection. ✓</p> <p>Network shaping: To prioritise certain types of internet traffic over others. For example, critical services (like VoIP or streaming) get higher priority and bandwidth. ✓</p>		(2)
10.4	10.4.1	<p><b>What the internet is and use thereof</b></p> <p>The internet is a global network that connects millions of computers and networks. ✓</p> <p>AND</p> <ul style="list-style-type: none"> <li>• Share information.</li> <li>• Entertainment.</li> <li>• Communicate to one another.</li> <li>• Shopping.</li> <li>• Research.</li> </ul> <p>Any one ✓</p> <p>Note: Accept any reason for using the internet.</p>	(2)
	10.4.2	<p><b>Fair usage policy</b></p> <ul style="list-style-type: none"> <li>• The ISP may limit data speed or usage after a certain threshold, ensuring that bandwidth is available for everyone.</li> <li>• It's a rule that puts a limit on 'uncapped' internet. Your account won't be restricted unless you use too much data. If you do, your internet might slow down.</li> </ul> <p>Note: First mark: You won't be restricted. ✓</p> <p>Second mark: Unless you use too much data. ✓</p>	(2)



10.5	<p><b>Lowering setup cost</b></p> <p>They can implement a BYOD policy. ✓ Employees can use their own devices to perform work related activities/the organisation can buy less devices. ✓</p>	(2)
10.6	<p><b>Print – green computing</b></p> <ul style="list-style-type: none"> <li>• Duplex printing: Print on both sides of the paper.</li> <li>• Print preview: View the document before printing.</li> <li>• Print Quality Settings: Print in draft mode/low quality.</li> </ul> <p>Any two ✓ ✓</p> <p>Note: Do not award marks for printing in greyscale. Do not accept use environmentally friendly fonts as it is not related to a print setting.</p>	(2)
10.7	<p><b>Office suite – cannot afford</b></p> <ul style="list-style-type: none"> <li>• Explore free, open-source/freeware programs as alternatives.</li> <li>• Microsoft Office 365 Education: Students can access Office 365 for free through their educational institution.</li> <li>• Google Workspace for Education: Provides free access to Google Docs, Sheets, and Slides.</li> </ul> <p>Any two ✓ ✓</p>	(2)
10.8	<p><b>Text to speech</b></p> <p>Hearing impaired ✓</p>	(1)
10.9	<p><b>OCR explanation</b></p> <p>Optical character recognition, ✓ it is used to scan a document to an electronic copy that can be edited. ✓</p>	(2)
10.10	<p><b>Track changes identification</b></p> <p>Each reviewer's edits are color-coded ✓ and labelled (with their username/name). ✓</p>	(2)



10.11	10.11.1	<p><b>Error in webpage</b></p> <p><code>&lt;h1 style="color:red; font-size:40px;" Heading&lt;/h1&gt;</code> ✓          Note: The := should be :</p> <p><code>&lt;h1 style="color:red;font-size:40px;"&gt;Heading&lt;/h1&gt;</code> ✓          Note: The &gt; should be included.</p>	(2)
	10.11.2	<p><b>Purpose of the title section</b></p> <ul style="list-style-type: none"> <li>• When users bookmark a page or add it to their favourites, the title is often used as the default name for the bookmark.</li> <li>• Search engines often use the title of a web page as part of the search results.</li> <li>• Screen readers and other assistive technologies use the title to provide users with information about the content and purpose of the page.</li> </ul> <p>Any two ✓ ✓</p>	(2)
			<b>[25]</b>
			<b>TOTAL SECTION C: [50]</b>
			<b>GRAND TOTAL: [150]</b>