



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

COMPUTER APPLICATIONS TECHNOLOGY P2

NOVEMBER 2017

MARKING GUIDELINES

MARKS: 150

These marking guidelines consist of 15 pages.

SUGGESTIONS AND RECOMMENDATIONS TO MARKERS

- Revisit the questions and the marking guidelines 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.
- 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 marking guidelines. Ask yourself or your senior marker if the response could 'fit' into the marking guidelines before allocating the correct marks to the candidate. For example, the marking guidelines state 'cheap' and the learner responds with 'less expensive'.
- Beware of overlapping answers to a specific question. In general, one mark is awarded per fact.

SECTION A

QUESTION 1: MULTIPLE-CHOICE

1.1	B	✓	1
1.2	B	✓	1
1.3	A	✓	1
1.4	C	✓	1
1.5	C	✓	1
1.6	B	✓	1
1.7	C	✓	1
1.8	B/C/D	✓	1
1.9	A	✓	1
1.10	B/D	✓	1
Total: [10]			

QUESTION 2: MATCHING ITEMS

2.1	N	✓	1
2.2	O	✓	1
2.3	M	✓	1
2.4	B	✓	1
2.5	P	✓	1
2.6	S	✓	1
2.7	H	✓	1
2.8	T	✓	1
2.9	R/D	✓	1
2.10	F	✓	1
Total: [10]			

QUESTION 3: TRUE/FALSE ITEMS

<i>(Note to marker: Do not award a mark if only 'FALSE' is written down.)</i>		
3.1	TRUE✓	1
3.2	FALSE, open-source/free/open/FOSS✓	1
3.3	FALSE, erase/wipe/delete✓	1
3.4	FALSE, Conditional formatting✓	1
3.5	FALSE, MID✓	1
		[5]

TOTAL SECTION A: 25

SECTION B**QUESTION 4: SYSTEMS TECHNOLOGIES**

4.1	<ul style="list-style-type: none"> • Batteries run flat • Limited range • Prone to interference/crosstalk • More expensive than wired keyboards • If transceiver is damaged/lost/stolen, keyboard has to be replaced as well/Easily stolen • Keyboard drivers only load once operating system is loaded • Can be intercepted/tapped into by hackers • Latency during gaming/Not as responsive as wired keyboards <p style="text-align: right;">✓✓ (Any two)</p>		(2)
4.2	<ul style="list-style-type: none"> • Buttons/Components designed for smaller screen • No scroll bars • Fewer screen elements visible/Less information visible • No mouse pointer required/Designed for touch interface <p style="text-align: right;">✓✓ (Any two)</p>		(2)
4.3	<p>All-in-one computer✓</p> <p><i>(Note to marker: Accept any reasonable description/example of an all-in-one PC, e.g. Laptop/Touch screen/Convertible/Hybrid)</i></p>		(1)
4.4	<ul style="list-style-type: none"> • Re-install driver • Check cable/transceiver connection • Try another surface for the mouse • Re-start the computer/mouse • Adjust mouse pointer settings/speed/sensitivity • Try another USB port • Clean/Clear any residue on optical sensor • Replace battery on wireless mouse <p style="text-align: right;">✓✓ (Any two)</p>		(2)
4.5	<ul style="list-style-type: none"> • Most data/software is available to download • Reduction in size/Lighter to carry • Save on battery life/Longer battery life • Other larger capacity storage options available • Less demand for optical media/Obsolete <p style="text-align: right;">✓✓ (Any two)</p>		(2)
4.6	<ul style="list-style-type: none"> • Transfer of files/data between devices • Can be used for payments • Can be used with RFID tags <p style="text-align: right;">✓✓ (Any two)</p>		(2)

4.7	<ul style="list-style-type: none"> Uninstall the software/Stop using the software Purchase a licence/Register the software Continue using with reduced functionality <p style="text-align: right;">✓ (Any one)</p>		(1)
4.8.1	<ul style="list-style-type: none"> Easier to share with others who do not have the program in which it was originally created/Reader is freely available Layout and formatting will be maintained Can add security to pdf to make it difficult to edit/print Reduced file size <p style="text-align: right;">✓ (Any one)</p>		(1)
4.8.2	<ul style="list-style-type: none"> Save as PDF/Send to PDF Export to PDF Print to PDF Use converter software Print on paper and scan to pdf/Fax to e-mail <p style="text-align: right;">✓ (Any one)</p>		(1)
4.8.3	<ul style="list-style-type: none"> Difference in DPI if they were scanned to pdf Different content, e.g. smaller document is from text/larger document is from an image Different PDF converters were used/Converted from different programs <p style="text-align: right;">✓ (Any one)</p> <p>AND</p> <ul style="list-style-type: none"> OCR data is not available/PDF is an image PDF security does not allow the search function <p style="text-align: right;">✓ (Any one)</p>		(2) (4)
4.9	<ul style="list-style-type: none"> Use search program and files tool Use a file management app (e.g. Windows Explorer, My Computer) and navigate to folder Check for shortcuts on desktop Open a recent document for a particular application Check programs pinned to the taskbar Check add/remove programs list Use Run Command feature <p style="text-align: right;">✓✓ (Any two)</p>		(2)
4.10	<p>Searches a database✓ using a product code/key/barcode✓</p> <p><i>(Note to marker: Accept any reference to retrieval of information if 'Database' is not mentioned.)</i></p>		(2)

4.11	<ul style="list-style-type: none"> • Extra RAM slots available/Ability to add more RAM • Extra ports available • Replaceable graphics card/adaptor • Replaceable CPU • Extra hard drive bay available/Replaceable hard disk drive/SSD • Replaceable optical drive • Removable battery <p style="text-align: right;">✓✓ (Any two)</p>		(2)
4.12.1	<ul style="list-style-type: none"> • Head gear/Helmet with screen • Headphones • Gaming console • Smartphones/Mobile device/Cellphone • Gloves/Body suit with sensors/controllers • Box/Room/Simulation environment <p style="text-align: right;">✓✓ (Any two)</p>		(2)
4.12.2	<ul style="list-style-type: none"> • Tourism/Virtual tours • Flight simulation • Entertainment/Gaming • Communication • Education <p style="text-align: right;">✓ (Any one)</p> <p><i>(Note to marker: Accept any valid explanation of a use of VR)</i></p>		(1) (3)
			[25]

QUESTION 5: INTERNET AND NETWORK TECHNOLOGIES

5.1	Router/Modem✓		(1)
5.2	<ul style="list-style-type: none"> • Speed of data transfer is slow • Range is limited (up to 100 m) • Limited number of devices can connect <p style="text-align: right;">✓✓ (Any two)</p>		(2)
5.3	<ul style="list-style-type: none"> • High bandwidth costs • Limited bandwidth/Uploads and downloads can take long • Cloud storage subscription fees/Limited space at no subscription • Security issues • Internet connection may be troublesome <p style="text-align: right;">✓✓ (Any two)</p>		(2)
5.4	<ul style="list-style-type: none"> • Wi-Fi/Wi-Max • NFC/RFID • Satellite • Bluetooth • 3G/LTE <p style="text-align: right;">✓ (Any one)</p>		(1)
5.5	<ul style="list-style-type: none"> • Connects two or more computers/devices in a network • Directs network traffic (data) efficiently <p style="text-align: right;">✓ (Any one)</p> <p><i>(Note to marker: Accept features of a managed (smart) switch that has to do with control or management of the network.)</i></p>		(1)
5.6	<ul style="list-style-type: none"> • Unable to edit a document • Unable to access a folder/data/files • Restriction on access to physical resources, e.g. Printers, flash drives, etc. • Cannot access the Internet/a particular website • Cannot make changes to system settings/Cannot perform administration tasks • Cannot install software <p style="text-align: right;">✓✓ (Any two)</p>		(2)
5.7	<ul style="list-style-type: none"> • Web browser • File management application/FTP program (e.g. Windows Explorer/File Manager) • Proprietary interface program <p style="text-align: right;">✓ (Any one)</p> <p><i>(Note to marker: Accept any suitable example of a program.)</i></p>		(1)
5.8.1	<p>Hangouts/Facetime/WhatsApp/Viber, etc.✓</p> <p><i>(Note to marker: Accept any suitable example of a program.)</i></p>		(1)

5.8.2	<ul style="list-style-type: none">• Internet connection may not be reliable• Lack of bandwidth• Destination point may not have VOIP• Difficult for emergency services to trace origin of the call <p style="text-align: right;">✓ (Any one)</p>		(1)
5.8.3	<ul style="list-style-type: none">• Prevent dropped calls• Save on data/costs <p style="text-align: right;">✓ (Any one)</p>		(1)
5.9	<ul style="list-style-type: none">• Connect speakers via Bluetooth/Via Bluetooth/Bluetooth speakers• Use Chromecast/Use Wi-Fi• Via USB cable• Using the device's speaker <p style="text-align: right;">✓✓ (Any two)</p>		(2)
			[15]

QUESTION 6: INFORMATION MANAGEMENT

6.1	<ul style="list-style-type: none"> It may be an unverifiable author The author could have no expertise in that subject/field The author could have plagiarised the information <p style="text-align: right;">✓ (Any one)</p>		(1)
6.2	<ul style="list-style-type: none"> It may give biased information It may not give all the information required <p style="text-align: right;">✓(Any one)</p> <p><i>(Note to marker: Accept answers related to a scam.)</i></p>		(1)
6.3.1	Males decreased/Females increased✓	(1)	
6.3.2	Use a line/bar/column graph✓	(1)	(2)
6.4	<ul style="list-style-type: none"> Too few respondents will result in inconclusive findings Sufficient number of respondents will result in reliable findings Wider range of viewpoints <p style="text-align: right;">✓(Any one)</p>		(1)
6.5	The sorted range did not include the marks column✓✓		(2)
6.6	First row should be set to field names✓ Missing field/surname in the third row/other data in wrong columns for row 2/3✓ Wrong delimiter used/Data is not separated into columns in the last row✓		(3)
			[10]

QUESTION 7: SOCIAL IMPLICATIONS

7.1	<ul style="list-style-type: none"> • Cyberbullying • Flaming <p style="text-align: right;">✓ (Any one)</p> <p><i>(Note to marker: Accept bullying.)</i></p>		(1)
7.2	<ul style="list-style-type: none"> • Do not give out login information/Do not use other peoples credentials • Do not visit untrustworthy/offensive websites • Do not stream or download during peak use • Do not use for non-school related activities • Limit the duration of using ICT resources • Guidelines on the use of external storage media • Guidelines on printer usage <p style="text-align: right;">✓✓ (Any two)</p> <p><i>(Note to marker: Accept answers that may be practical in a school situation.)</i></p>		(2)
7.3	<ul style="list-style-type: none"> • Software does not require a licence key/ freeware/shareware/OSS • Upgrade of existing software • Pre-activated enterprise software • The software is illegal/cracked <p style="text-align: right;">✓✓ (Any two)</p>		(2)
7.4	<ul style="list-style-type: none"> • Ensure privacy of data/They should not sell/share user data to third parties • Ensure safety of data against hackers/Encrypt data • Ensure compliance with the POPI act (Protection of Personal Information) <p style="text-align: right;">✓✓ (Any two)</p>		(2)
7.5.1	<p>Phishing✓</p> <p><i>(Note to marker: Accept an explanation of phishing)</i></p>		(1)
7.5.2	<ul style="list-style-type: none"> • Not HTTPS/Connection is not secure/Lock icon missing • Not a South African domain • Spelling/Grammar mistakes <p style="text-align: right;">✓✓ (Any two)</p>		(2)
			[10]

QUESTION 8: SOLUTION DEVELOPMENT

8.1	<ul style="list-style-type: none"> To check/correct the text layout/formatting/non-printing characters of the document To check the number of spaces/tabs between words Checking for page/section breaks Checking for empty lines <p style="text-align: right;">✓(Any one)</p>		(1)
8.2.1	18.5 (cm) ✓ (Note to marker: Accept an answer from 18.3 to 18.7)		(1)
8.2.2	<ul style="list-style-type: none"> Merge cells Copy all text to one cell and delete unwanted column(s) <p style="text-align: right;">✓(Any one)</p>		(1)
8.2.3	<ul style="list-style-type: none"> Add underlined words to dictionary Change the language of the spell checker Disable the spell checker <p style="text-align: right;">✓✓(Any two)</p> <p>(Note to marker: Accept responses that refer to right click and selecting the correct option as well as selecting the "Ignore/Ignore all" option.)</p>		(2)
8.2.4	<ul style="list-style-type: none"> Use Autofit option Adjust width in table properties Manually drag column borders Change page orientation to landscape Change margins Change the page size <p style="text-align: right;">✓(Any one)</p>	(1)	(5)
8.3.1	It will have no effect✓		(1)
8.3.2	<ul style="list-style-type: none"> The dimensions specified are not in keeping with the aspect ratio The balance between height and width is wrong <p style="text-align: right;">✓(Any one)</p>	(1)	
8.3.3	The blind user will not be able to understand what the picture is about✓ There is no alt attribute (for the screen reader)✓	(2)	(4)
8.4.1	(Data) validation ✓	(1)	
8.4.2	It indicates the use of a filter/Gives a list of options for items to display✓	(1)	
8.4.3	DO NOT MARK		
8.4.4	Property✓ Unique field/No duplicate in this field ✓	(2)	(4)
			[14]

TOTAL SECTION B: 74

SECTION C: INTEGRATED SCENARIO**QUESTION 9**

9.1.1	Word/Publisher✓ (Note to marker: Accept any other suitable software for this purpose.)	(1)	
9.1.2	<ul style="list-style-type: none"> Paper size not accommodated by most printers Paper size too large for a booklet ✓(Any one)	(1)	
9.1.3	<ul style="list-style-type: none"> Use draft/econo mode when printing/Reduce print resolution Use eco fonts Print multiple pages in one/Reduction in print size Check document/Proof-read thoroughly before printing Print in black and white Use fewer images ✓✓(Any two)	(2)	
9.1.4	Distribute booklet electronically/Print to PDF✓	(1)	
9.1.5	<ul style="list-style-type: none"> SD Card Micro SD Card OTG enabled storage medium/Flash Drive Internal memory (Built in memory) Optical media ✓✓(Any two) (Note to marker: Accept reference to OTG storage medium as a USB. If a response is memory card, only one mark can be given in total for cards)	(2)	(7)
9.2.1	Table✓ Form✓	(2)	
9.2.2	Customer ID/Usage period✓ Set default value✓	(2)	
9.2.3	Use a query/filter/sorting✓	(1)	
9.2.4	RSS Feed✓	(1)	
9.2.5	<ul style="list-style-type: none"> Offenders will be ridiculed/ostracised May incite others to take revenge on offenders Can affect their reputation Accused people may sue the municipality/Accused people may get angry People will try harder to save water/Positive behavioural change ✓✓(Any two)	(2)	(13)

9.2.6	<ul style="list-style-type: none"> • Consistency: layout/fonts • Ease of navigation, e.g. Hyperlinks • Accommodate for displays on mobile and desktop devices • Colour schemes • Readability/Font size/Typography/Web pages not too busy • Accessibility features <p style="text-align: right;">✓✓(Any two)</p> <p><i>(Note to marker: Accept any valid examples of the above bullets.)</i></p>	(2)	
9.2.7	Internet attack/DoS attack/Bot-attack	(1)	
9.2.8	Customer computers can be infected by malware/hacked✓ and used as a bot/zombie✓	(2)	
9.3.1	Respondent is not guided on what type of answer is required/Does not have options to select from/Open-ended question✓ That data cannot be easily analysed✓	(2)	
9.3.2	Print and distribute/Distribute via postal services/fax Ask questions verbally face to face Have respondents fill it in online	✓✓(Any two) (2)	
9.3.3	Inaccurate/Unreliable results for the survey✓	(1)	(5)
			[25]

QUESTION 10

10.1.1	Cellular/3G/Wi-Fi/LTE/4G/Wireless✓	(1)	
10.1.2	<ul style="list-style-type: none"> • SSD is faster • SSD is resistant to impact • Uses less energy/Generates less heat • Quieter operation <p style="text-align: right;">✓✓(Any two)</p>	(2)	
10.1.3	<ul style="list-style-type: none"> • Brightness • Contrast ratio • Reflective property of screen <p style="text-align: right;">✓(Any one)</p>	(1)	
10.1.4	WhatsApp/Facebook messenger/Telegram/Twitter✓ <i>(Note to marker: Accept any suitable internet based messaging service.)</i>	(1)	(5)
10.2.1	<ul style="list-style-type: none"> • The app/project may not be completed • You may not get your money back (if the project fails) • You are unlikely to become a shareholder/recipient of any income that the app/project may generate <p style="text-align: right;">✓✓(Any two)</p>	(2)	
10.2.2	GPS/Cellular Triangulation✓	(1)	
10.2.3	Location/Coordinates✓	(1)	(4)
10.3.1	To be able to identify/track people✓	(1)	
10.3.2	<ul style="list-style-type: none"> • Finger print reader • Iris/Eye/Retinal scanner • (Camera for) facial recognition • (Microphone for) voice recognition <p style="text-align: right;">✓✓(Any two)</p>	(2)	
10.3.3	<ul style="list-style-type: none"> • Document/Files/Data backup (in cloud) • Personalised services can be used from any computer, e.g. E-mail • Possible to track your smartphone/Make it ring • Lock/Block/Erase the phone remotely <p style="text-align: right;">✓✓(Any two)</p>	(2)	
10.3.4	Wi-Fi/Hotspot✓	(1)	(8)

10.3.5	<ul style="list-style-type: none"> • Be cautious of who is around you • Try not to do Internet banking • Log off when finished • Use private browsing/incognito mode • Disable/Ignore the Save Password feature when browsing • Avoid using external storage because of malware • Avoid sending files/data because of malware • Avoid entering personal details whilst online <p style="text-align: right;">✓✓(Any two)</p>	(2)	
10.4.1	Malware infection/Ransomware✓	(1)	
10.4.2	It is a virtual/digital/crypto currency✓	(1)	
10.4.3	<ul style="list-style-type: none"> • Criminals can remain anonymous/Transaction cannot be traced to the individual • Evading tax <p style="text-align: right;">✓(Any one)</p>	(1)	
10.4.4	<ul style="list-style-type: none"> • Restore data from backup • Do a factory reset/Re-install the system • Pay the ransom if necessary • Disconnect from the network • Report to the authorities • Implement measures for future prevention <p style="text-align: right;">✓(Any one)</p>	(1)	(4)
10.5.1	Cell is formatted as General or Number/Cell is not formatted to text/Incorrect formatting✓	(1)	
10.5.2	<p>Uses Gender data (Column D) instead of Age data (Column E)/Range uses the wrong column✓</p> <p>□□□□□□□□□□□□□□□□ : Accept a reference to range not incorporating numerical values.)</p>	(1)	
10.5.3	<ul style="list-style-type: none"> • Manually drag the column width wider • Double click the right hand border of the column header • Reduce the font size • Rotate text • Wrap text <p style="text-align: right;">✓✓(Any two)</p>	(2)	(4)
			[25]

TOTAL SECTION C: 50
GRAND TOTAL: 149