



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

COMPUTER APPLICATIONS TECHNOLOGY P2

(THEORY)

FEBRUARY/MARCH 2013

MEMORANDUM

MARKS: 150

This memorandum consists of 13 pages.

SUGGESTIONS AND RECOMMENDATIONS TO MARKERS

- Revisit questions and memorandum frequently during the first half hour of marking.
- It is advisable to read the question frequently (and re-read) together with the candidate's response to check if they correlate. Do not get misled by candidates' statements/answers.
- On the second day it is suggested that the markers re-read the questions and answers before commencing the day's marking.
- Be careful not to home in on keywords or general statements, but rather read the entire answer. If in doubt, read the entire answer and then the question paper and memorandum. Ask yourself or your senior marker if the response could 'fit' into the memorandum to allocate the correct marks to the candidate, for example memo states 'cheap' and learner responds 'less expensive'.
- Beware of overlapping answers to a specific question. In general, one mark is awarded per fact.

SECTION A**QUESTION 1
MATCHING ITEMS**

1.1	L	✓	(1)
1.2	P	✓	(1)
1.3	Q	✓	(1)
1.4	J	✓	(1)
1.5	B	✓	(1)
1.6	R	✓	(1)
1.7	T	✓	(1)
1.8	H	✓	(1)
1.9	C	✓	(1)
1.10	F	✓	(1)
Total: [10]			

**QUESTION 2
MULTIPLE-CHOICE QUESTIONS**

2.1	B	✓	(1)
2.2	D	✓	(1)
2.3	B	✓	(1)
2.4	C	✓	(1)
2.5	A	✓	(1)
2.6	B	✓	(1)
2.7	C	✓	(1)
2.8	D	✓	(1)
2.9	A	✓	(1)
2.10	B	✓	(1)
Total: [10]			

TOTAL SECTION A: 20

SECTION B**QUESTION 3**

3.1	<ul style="list-style-type: none"> • 1.16 GHz ✓ <p><i>(Note to marker: GHz must appear)</i></p>	1	1
3.2	<ul style="list-style-type: none"> • DVD writer reads/writes <u>both</u> DVDs and CDs/ a CD writer cannot read/write DVDs. • Larger storage capacity on DVDs <p><i>(Note to marker: Also accept that CD writers are not readily available any more.)</i></p> <p style="text-align: right;">✓✓ (Any two)</p>	2	2
3.3	<ul style="list-style-type: none"> • Playing computer games • Photo/video editing • Graphic design/working with graphics/pictures • Animations • Tasks that require 3D graphics display, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2	2
3.4	<ul style="list-style-type: none"> • It depends on battery power; one may suddenly be without a mouse • The mouse is easily lost or stolen • Possible interference with signal, etc. <p style="text-align: right;">✓ (Any one)</p>	1	1
3.5.1	<ul style="list-style-type: none"> • The notebook computer has built-in wireless networking capabilities – to set up a wireless network easily • The notebook computer has a built-in monitor – no need to purchase an additional monitor • The notebook computer has a built-in webcam – no need to purchase an additional webcam • The notebook computer has a 1 Year Collect and Return Warranty – there is after sales service, etc. <p><i>(Note to marker: Accept: The notebook computer is portable. It can be moved and locked away in a safe place.)</i></p> <p style="text-align: right;"><i>Advantage ✓ + relevant motivation ✓</i></p>	2	

3.5.2	<ul style="list-style-type: none"> • The desktop computer has a larger hard drive – can store more data • The desktop computer has an ergonomic keyboard – will lead to less strain on the hands • It is easier to upgrade a desktop computer than a notebook computer – no need to pay a specialist to do the upgrade as the user can do simple upgrades <p><i>(Note to marker: Accept 'The desktop would not be stolen as easily as a notebook'.)</i></p> <p style="text-align: right;"><i>Advantage ✓ + relevant motivation ✓</i></p>	2		4
3.6	<ul style="list-style-type: none"> • RAM • Hard drive (HDD) • CPU • Graphics card, etc. <p style="text-align: right;"><i>✓✓ (Any two)</i></p>	2		2
3.7.1	<ul style="list-style-type: none"> • Check that the computer is plugged in/connected properly • Check for paper jam/paper in the printer • Check if the toner cartridges are properly installed and have toner in • Check that the correct drivers have been installed • Check that the correct printer has been selected • Connect to another port • Use a different printer cable • Check the printer queue to see if the print job has been paused • Check correct paper size/tray was selected/used, etc. <p style="text-align: right;"><i>✓✓ (Any two)</i></p>	2		
3.7.2	<ul style="list-style-type: none"> • Return the cartridges to the store to send for recycling/take the cartridges to a recycling point ✓ • Refill the cartridges for re-use ✓ 	1 1		4
3.8	<ul style="list-style-type: none"> • He would get a scanner/copier and printer (and sometimes fax) in one machine/provides more functions • It takes up less desk space than three or four different devices • It is cheaper than buying two, three or four separate devices <p style="text-align: right;"><i>✓✓ (Any two)</i></p>	2		2
3.9.1	<ul style="list-style-type: none"> • Megapixel/pixels per inch ✓ 	1		
3.9.2	<ul style="list-style-type: none"> • Printer • Monitor <p style="text-align: right;"><i>✓ (Any one)</i></p>	1		
3.9.3	<ul style="list-style-type: none"> • Pixellated/Unclear/Fuzzy/Not sharp/Poorly defined • Smaller storage size, etc. <p style="text-align: right;"><i>✓ (Any one)</i></p>	1		3

3.10	<ul style="list-style-type: none"> • Connect cellphone with Bluetooth/Set up a PAN/Transfer photos from the cellphone/smartphone via the PAN • Plug SD card into port/card reader • E-mail the photo from the smartphone to the computer <p style="text-align: right;">✓✓ (Any two)</p>	2	2
3.11	<ul style="list-style-type: none"> • Automatically set up to connect to the Internet if Internet connectivity is available • Thin and small/easy to handle/very mobile • Combines the features of a traditional notebook computer with the simplicity of pencil and paper/User writes on the screen with a 'digital' pen/May write notes instead of using the on-screen keyboard • Has software to convert handwriting to text • Touch screen/stylus • Flat-form factor allows users to work on any surface • Screen rotation/can view in landscape or portrait depending on the content/can view sideways • Easy to zoom by touch/pulling • Longer battery life, etc. <p><i>(Note to marker: The assumption is that the iPad is switched on. Accept only benefits that are unique to tablets.)</i></p> <p style="text-align: right;">✓✓ (Any two)</p>	2	2
			[25]

QUESTION 4

4.1.1	<ul style="list-style-type: none"> • Controls memory management • Controls storage • Manages processes, for example input/output, booting, basic security, etc. • Interface between computer and user • Controls hardware and software <p style="text-align: right;">✓ ✓ (Any two)</p>	2	
4.1.2	<ul style="list-style-type: none"> • Android • Symbian • Apple iOS • iPhone OS • (RIM) Blackberry OS • Windows mobile/Windows 7 mobile • Linux/Maemo/Meebo, etc. <p><i>(Note to marker: Accept versions of Android such as Ice-cream Sandwich/Honeycomb/Gingerbread.)</i></p> <p style="text-align: right;">✓ (Any one)</p>	1	3
4.2.1	<ul style="list-style-type: none"> • Site licence • Multi-user licence <p style="text-align: right;">✓ (Any one)</p>	1	
4.2.2	<ul style="list-style-type: none"> • The site licence or multi-user licence allows software to be installed on many computers ✓ • Licences for home use usually allow the software to be installed on one computer only ✓ 	1 1	3
4.3	<ul style="list-style-type: none"> • Shareware can be used free of charge for a limited period ✓ after which the developer has to be paid ✓ <p><i>(Note to marker: Also accept: It is only a demonstration product and the fully functional product will be received after payment.)</i></p>	1 1	2
4.4	<ul style="list-style-type: none"> • Detect infected files • Remove infected files • Quarantine infected files • Attempt to repair infected files by removing viruses • Scanning for malware • Removes malware, etc. <p style="text-align: right;">✓✓✓ (Any three)</p>	3	3

4.5	<ul style="list-style-type: none"> • Computer/operating system runs slowly • Anti-virus pop-up message appears/report by anti-virus software • An unusual image or message appears/sound or music is heard • Duplicate files and folders appear/unknown program or files suddenly appear/files appear as shortcuts • A program or file is suddenly missing • Memory is used up/available memory is less • The size of files changes • Files become corrupted/do not work properly • System properties change, etc. <p style="text-align: right;">✓✓✓ (Any three)</p>	3	3
4.6.1	<ul style="list-style-type: none"> • It is not full/there is a lot of free space/very little is stored on the hard drive ✓ 	1	
4.6.2	<ul style="list-style-type: none"> • There will be no significant difference in free space on the disk ✓ • Defragmenting reorganises/rearranges files ✓ 	1 1	
4.6.3	<ul style="list-style-type: none"> • Run Scan Disk • Run regular anti-virus updates • Make backups of data • Delete unnecessary files • Download software updates/'patches' regularly • Update security software • Physical cleaning/wiping keyboard/protect against dust • Update drivers, etc. <p style="text-align: right;">✓✓✓ (Any three)</p>	3	6
4.7.1	<ul style="list-style-type: none"> • A series of actions/instructions a user creates/records and saves ✓ which can be reused to automate/repeat tasks ✓ 	1 1	
4.7.2	<ul style="list-style-type: none"> • He could record all the steps to place specific text (such as his name) in a specialised font and formatting in a document. If he then wishes to reuse this text he would only run the macro ✓ <p><i>(Note to marker: Accept any suitable example of the use of a macro.)</i></p>	1	3
4.8	<ul style="list-style-type: none"> • Better security/'Bugs' will be fixed/Errors are fixed • Modifications to device drivers are made • Access to new expanded functions are given • Allow new functionality to some programs • Solves problems that occurred in the program, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2	2
			[25]

QUESTION 5

5.1	<ul style="list-style-type: none"> • Cheaper and easier to set up • Does not need much expertise to run/does not require a network administrator • May not need the better security offered by a client-server network • No need to store large amounts of data on the server • No need to access common data, etc. <p><i>(Note to marker: Accept reference to fewer computers in a peer-to-peer network.)</i></p> <p style="text-align: right;">✓✓✓ (Any three)</p>	3		3
5.2	<ul style="list-style-type: none"> • NIC (network interface card) ✓ 	1		1
5.3.1	<ul style="list-style-type: none"> • Playing computer games on a network ✓ 	1		
5.3.2	<ul style="list-style-type: none"> • Joystick • Speakers • Game pad • Game controller • Game console • Gaming keyboard, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2		3
5.4.1	<ul style="list-style-type: none"> • Web browser ✓ 	1		
5.4.2	<ul style="list-style-type: none"> • What the costs are • Bandwidth/speed of connection • Whether it controls standard viruses • What the cap is on the amount of data that can be downloaded • Whether it hosts websites for clients • What the different types of connections to the ISP are • What type/hours of support can be expected • Network coverage, for example 3G, etc. <p style="text-align: right;">✓✓✓ (Any three)</p>	3		
5.4.3	<ul style="list-style-type: none"> • Dialup • ADSL • 3G/cellular/LTE • iBurst/radio • Satellite <p style="text-align: right;">✓✓ (Any two)</p>	2		6

5.5	<ul style="list-style-type: none"> • High speed/Faster download • Permanent connection • One can watch video clips/movies and listen to music over the Internet • Can use telephone and surf Internet at same time if using a fixed line, etc. <p style="text-align: right;">✓✓✓ (Any three)</p>	3	3
5.6	<ul style="list-style-type: none"> • Do not have to complete a download before viewing the video/listening to the audio • Watch a video live/on the Internet • Can listen to music in real time, etc. <p style="text-align: right;">✓ (Any one)</p>	1	1
5.7	<ul style="list-style-type: none"> • To indicate that the website is legitimate ✓ 	1	1
5.8	<ul style="list-style-type: none"> • To access files on the Internet from any computer anywhere that has Internet access • To store large audio/video files/saves local space • They do not have to buy large and expensive storage devices • If the computer crashes/is stolen the data will still be safe • To allow others to access files that you have stored in the cloud/on the Internet, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2	2
5.9	<ul style="list-style-type: none"> • E-commerce – to identify users ✓ (data such as user names are available) • Web applications – to record and store user preferences ✓ (registers viewing preferences) 	1 1	2
5.10	<ul style="list-style-type: none"> • Keylogging ✓ 	1	1
5.11.1	<ul style="list-style-type: none"> • Use a filtering program such as a pop-up blocker ✓ 	1	
5.11.2	<ul style="list-style-type: none"> • Program that displays online advertisements ✓ in a banner or pop-up window 	1	2
5.12	<ul style="list-style-type: none"> • AUP (Acceptable Use/Usage Policy) ✓ 	1	1
			[26]

QUESTION 6

6.1	<ul style="list-style-type: none"> • Look away/Roll eyes/close eyes and rest them every 10-15 minutes • Blink your eyes regularly • Adjust the distance between you and the monitor/place the monitor an arm's length away • Adjust the height of the monitor/Place the top of the monitor at eye level • Adjust the resolution/font sizes/use larger fonts • Adjust contrast settings • Adjust the lighting, etc. <p style="text-align: right;">✓✓✓ (Any three)</p>	3		3
6.2.1	<ul style="list-style-type: none"> • Do not get side-tracked • Keeps focus • Directs the investigation • Ensures that the learner understands the task <p style="text-align: right;">✓ (Any one)</p>	1		
6.2.2	<ul style="list-style-type: none"> • Check the authority/affiliation of the author • Information should be current • Should be free of prejudice • Check against another website that the content is accurate • Links should work <p style="text-align: right;">✓✓ (Any two)</p>	2		3
6.3.1	<ul style="list-style-type: none"> • SUMIF ✓ 	1		
6.3.2	<ul style="list-style-type: none"> • MODE ✓ 	1		2
6.4.1	<ul style="list-style-type: none"> • Software ✓ • that helps users organise personal information ✓ 	1 1		
6.4.2	<ul style="list-style-type: none"> • GPS ✓ 	1		3
6.5	<ul style="list-style-type: none"> • To keep in contact/communicate/socialise with friends • To upload and share photos • To share files/data/attachments • To create interest groups, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2		2
6.6.1	<ul style="list-style-type: none"> • Webmail/web-based e-mail ✓ 	1		
6.6.2	<ul style="list-style-type: none"> • Real-time communication • Some services support voice and video • Can alert you to other services, e.g. weather, sports scores, etc. • Receiver of a message must be willing to accept message • Less formal than e-mail • Easier to collaborate • Do not need to refresh the e-mail inbox, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2		

6.6.3	<ul style="list-style-type: none"> Do not give out his e-mail address Use more than one e-mail address, i.e. one e-mail address for business and one e-mail address for social mail, etc. Use anti-spam software Make use of the filter option of your e-mail program Use the ISP's spam filters, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2	5
6.7.1	<ul style="list-style-type: none"> Writing in capital letters/'shouting' Using a font that makes it difficult to read Sending one e-mail to many people when it was meant for only one person (spam) No subject in subject field Very large attachment No link given for the 'deposit details' Spelling and grammatical errors, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2	
6.7.2	<ul style="list-style-type: none"> Emoticon ✓ <p><i>(Note to marker: Do not accept 'smiley'.)</i></p>	1	
6.7.3	<ul style="list-style-type: none"> Zip/compress data Remove unnecessary photos/images Save as PDF, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2	5
6.8	<ul style="list-style-type: none"> Do not re-send/pass the e-mail on Check out the source Do not accept the information at face value Visit a website that lists viruses and virus hoaxes Ignore the instruction to delete, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2	2
6.9	<ul style="list-style-type: none"> Collaborate/create/add to/modify/delete content Share their knowledge/perspectives when they modify content, etc. <p style="text-align: right;">✓ (Any one)</p>	1	1
6.10	<ul style="list-style-type: none"> Deterioration in language/spelling skills Could be wasting money/wastes airtime Engage in poor social relationships Distribution of pornographic material/unsolicited messages Unhealthy lifestyle/not enough time for culture or sport Cyber bullying Sending of junk messages/Loss of productivity, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2	2
			[28]

QUESTION 7

7.1	<ul style="list-style-type: none"> • The program in which the document was created is not installed on the computer • The document was created in a newer version than the one being used here • A document is corrupted, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2	2
7.2.1	<ul style="list-style-type: none"> • A hard return (enter) was inserted on the last page • She inserted (next) page break after her last text • She inserted another document • An extra row has been inserted into a table on the penultimate (previous) page, etc. <p style="text-align: right;">✓ (Any one)</p>	1	
7.2.2	<ul style="list-style-type: none"> • Place a (continuous) section break on the last page ✓ • Make sure the 'link to previous' option is turned off ✓ 	1 1	3
7.3	<ul style="list-style-type: none"> • If a person copies someone else's work ✓ • and submits it as his/her own ✓ <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • If someone steals intellectual property and uses it for his/her own advantage 	1 1	2
7.4	<ul style="list-style-type: none"> • Replace the 'apple' art border with a border that is more formal • Resize the font of the heading so that it is larger than the text • Punctuate the paragraph properly (use capital letters at the beginning of a sentence and for names) • Run a spell check to eliminate spelling mistakes • Choose a font that is easily readable, etc. <p style="text-align: right;">✓✓✓ (Any three)</p>	3	3
7.5.1	<ul style="list-style-type: none"> • Add a password • Encrypt the document <p style="text-align: right;">✓ (Any one)</p>	1	
7.5.2	<ul style="list-style-type: none"> • Track changes • Comments, etc. <p style="text-align: center;"><i>(Note to marker: Accept highlight.)</i></p> <p style="text-align: right;">✓ (Any one)</p>	1	2
7.6.1	<ul style="list-style-type: none"> • Cell B11: Make the column wider ✓ 	1	
7.6.2	<ul style="list-style-type: none"> • Cell C11: #VALUE! – cell used in a calculation was formatted as text/the number had a comma instead of a dot/decimal point/full stop • Entering text when formula requires a number or logical value • Cells referenced by a formula do not contain valid values • Supplying a range to a function that does not require a range, etc <p style="text-align: right;">✓ (Any one)</p>	1	2

7.7	<ul style="list-style-type: none"> • Use protection feature ✓ 	1	1
7.8	<ul style="list-style-type: none"> • Ask on an online forum • Help – online or offline, etc. <p style="text-align: right;">✓ (Any one)</p>	1	1
7.9.1	<ul style="list-style-type: none"> • Text ✓ <p><i>(Note to marker: Do not accept number.)</i></p>	1	
7.9.2	<ul style="list-style-type: none"> • Validation rule ✓ • List box/Combo box ✓ 	1 1	
7.9.3	<ul style="list-style-type: none"> • To force users to enter data • To enforce the correct number of digits • To enforce the correct format, etc. <p style="text-align: right;">✓✓ (Any two)</p>	2	
7.9.4	<ul style="list-style-type: none"> • Autonumber ✓ 	1	
7.9.5	<ul style="list-style-type: none"> • Set the <i>Cell_no</i> field to text ✓ 	1	
7.9.6	<ul style="list-style-type: none"> • Database can hold more records, if necessary • No calculations in this case • Data validation can be performed • Querying • Generate reports, etc. <p style="text-align: right;">✓✓✓ (Any three)</p>	3	10
			[26]

TOTAL SECTION B: 130
GRAND TOTAL: 150