basic education

**Department:
Basic Education
REPUBLIC OF SOUTH AFRICA**

NATIONAL
SENIOR CERTIFICATE

GRADE 12

COMPUTER APPLICATIONS TECHNOLOGY P2

(THEORY)

FEBRUARY/MARCH 2011

MEMORANDUM

MARKS: 150

This memorandum consists of 14 pages.

SECTION A

QUESTION 1: MATCHING ITEMS

1.1	H	✓	(1)
1.2	G	✓	(1)
1.3	M	✓	(1)
1.4	F	✓	(1)
1.5	C	✓	(1)
1.6	N	✓	(1)
1.7	B	✓	(1)
1.8	P	✓	(1)
1.9	R	✓	(1)
1.10	E	✓	(1)
			Total: 10

QUESTION 2: MULTIPLE-CHOICE QUESTIONS

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

TOTAL SECTION A: 20

SECTION B

QUESTION 3

3.1	• CPU/processor ✓ • RAM/memory ✓ • Hard drive ✓			3
3.2	• Mobility/portability/easier to use for presentations • Can run on batteries for a period of time if power is off • Occupy less space than a desktop PC, etc. (Any 2) ✓✓			2
3.3	• Type of battery • Expected battery life • Weight • Whether a carry case is included, etc. *(Do not accept answers that are applicable to desktops as well or cost issues including insurance, etc.)* (Any 2) ✓✓			2
3.4	3.4.1	• Size of monitor • Resolution/quality of image • Refresh rates • Viewing angles • Contrast ratios, etc. *(Do not accept answers relating to a choice between CRT and flat-screen monitors.)* (Any 2) ✓✓	2	
	3.4.2	• Consume less power • Weighs less • Take up less space, etc. *(Accept better resolution/quality of image.)* *(Do not accept better viewing angles.)* (Any 2) ✓✓	2	4
3.5	3.5.1	Ergonomics refers to the study/design of equipment ✓ so that it is comfortable/easy/safe for a user to use. ✓	2	

	3.5.2	• Soft touch keys • Keyboard/keys angles at a comfortable angle • Wrist/palm rest • Dedicated keys for frequently used functions • Curved keyboard, etc. (Any 2) ✓✓	2	
	3.5.3	Wireless/Bluetooth/Infrared ✓	1	
	3.5.4	• Greater chance of theft • Needs batteries to run • Interference/loss of signal, etc. (Any 2) ✓✓	2	7
3.6	3.6.1	Laser printer OR laser ✓ *(Also accept any answer relating to a networked photocopying type of printer.)*	1	
	3.6.2	Ink-jet printer OR ink-jet ✓ *(Also accept any answer relating to a 'photo-smart' type of printer or colour copier.)*	1	
	3.6.3	• Speed • Quality/resolution of printer • Paper sizes/media that can be used • Whether the printer can be connected to a network • Compatibility with operating system • Warranty/guarantees, etc. *(Do not accept answers relating to purchase cost.)* (Any 3) ✓✓✓	3	5
3.7	3.7.1	Biometric (devices) ✓	1	
	3.7.2	So that only the authorised/recognised user can gain access to the data on the flash disk. ✓	1	
	3.7.3	• Voice (print) recognition • Facial recognition • Iris (eye) recognition (Any 1) ✓	1	3
		Total		26

QUESTION 4

4.1	4.1.1	• Provides the user with an interface to work with computer/hardware • Responsible for allocating hardware resources • Coordinates all activities of the system • Provides basic security functions • Provides access to storage • Controls boot-up process • Manages the programs running in memory, etc. (*Accept relevant examples that illustrate any of the points listed.*) (Any 3) ✓✓✓	3	
	4.1.2	• Do not need/want the additional features provided with Windows 7 • Different interface to contend with/may need training/upgrading of skills • Computer may run slower than with original operating system • Problems with sourcing compatible drivers for hardware • Insufficient RAM available • Insufficient hard drive space • Processor not sufficient for new package, etc. (*Do not accept any answer referring to software issues.*) (Any 3) ✓✓✓	3	
	4.1.3	Open source software allows access (to the source code) to make changes to the program itself. ✓ (*Do not accept answers relating to licensing or cost.*)	1	
	4.1.4	Linux ✓	1	8
4.2	4.2.1	• User does not have to keep checking that they have all the latest updates. • 'Inexperienced' users do not have to make decisions as to which updates to install. • Does not require any time/effort on the part of the user, etc. (Any 1) ✓	1	
	4.2.2	Switch off the option to automatically download and install updates. ✓	1	

	4.2.3	• Fix security loopholes (e.g. against viruses) • Provide updated drivers • Fix errors/bugs in the (code of the) operating system • Provide new features in the operating system • Updates can make the system run more smoothly, etc. *(Do not accept vague answers such as 'keeps the system updated'.)* (Any 2) ✓✓	2	
	4.2.4	• Online updates may use a lot of cap/bandwidth/download time • While in progress it can/will slow down the computer • May not want features that come with updates • Users may want to choose which updates they want installed • A stable system can sometimes become unstable, etc. (Any 2) ✓✓	2	6
4.3	4.3.1	A virus is software/code ✓ written to impact negatively on a computer system/exploit security weaknesses ✓ and is designed to spread itself. ✓ *(Do not accept answers such as it being a 'bug'.)*	3	
	4.3.2	• Install antivirus software • Keep the antivirus software updated • Disable 'auto run' features for flash drives • Make sure operating system is updated regularly/automatically • Scan all portable storage media before using them • Avoid downloading/using pirated software • Scan attachments when/before opening them • Do not open attachments from unknown/suspicious sources • Do not interact/click on pop-ups that appear on the screen, etc. (Any 3) ✓✓✓	3	
	4.3.3	No ✓ viruses can install themselves on systems via any portable storage media (flash disks, etc).✓	2	8

4.4	• Use an uninstaller program (often comes with the program)
	• Use the operating system to uninstall the program
	  (e.g. Add/Remove programs in Control Panel in Windows)
	                                    (Any 1) ✓
			1

4.5	• Save in an earlier/lower version • Open on a PC that has the correct software installed (e.g. Office 2007/10) • Download and install a patch • Try opening in another program e.g. Open Office, etc. (Any 2) ✓ ✓		2
4.6	Professional editions have more features than home editions. ✓		1
	Total		**26**

QUESTION 5

5.1	5.1.1	• A LAN stretches over a limited (geographical) distance whereas a WAN (Wide Area Network) extends over a vast distance. ✓ • Any suitable example of a WAN (e.g. Internet, nation-wide banking network, etc.) ✓	2	
	5.1.2	Network card/network interface card (NIC) ✓	1	
	5.1.3	• Usernames/passwords • Setting access/group rights for users • Placing user groups on different segments of the network, etc. *(Do not accept answers relating to physical access to the computers.)* (Any 1) ✓	1	
	5.1.4	• More storage places available on the network/additional (network) drives available *(Accept specific drive letters e.g. X, OR non-local drives e.g. U, T, Z drives, etc.)* • Access to hardware not connected to the PC (e.g. shared printer etc) • Can communicate with other users on the networks, etc. (Any 2) ✓✓	2	6
5.2	5.2.1	• Speed of connection • Cap limit • Whether the service is available in your area • Reputation of ISP, etc. (Any 2) ✓✓	2	
	5.2.2	• Dial-up connections are charged for connection time (telephone costs) ✓ • Broadband connection costs are based on the volume of data transferred over a period ✓	2	4
5.3	5.3.1	Used to host/view/display videos ✓	1	
	5.3.2	• Use a program that will block specific types of sites *(Accept brand names such as iCop, Net Nanny or NetOp, etc.)* • Use proxy server/firewall to block the sites *(Accept only proxy or only server.)* (Any 1) ✓	1	

	5.3.3	High bandwidth required/reduces cap quickly✓ *(Do not accept answers relating to cost.)*	1	
	5.3.4	• Learners wasting time • Learners are potentially exposed to undesirable material • Learners can post potentially undesirable material • Could be considered a waste of bandwidth • Potential exposure of learners to online predators/paedophiles • Parents might not approve, etc. *(Do not accept any answer relating cap/bandwidth usage if used in the previous answer.)* (Any 2) ✓✓	2	
	5.3.5	• Download video material elsewhere ✓ • Post video in a shared drive/in learners' drives/ demonstrate with a projector, etc. ✓	2	7
5.4	5.4.1	• Previous/older copy of the web page has been stored/cached locally on the computer ✓ • Need to refresh/download web page ✓ *(Accept press F5 for refreshing of web page.)*	2	
	5.4.2	• RSS allows updated/new data from a variety of sites/sources to be automatically downloaded/sent to the user ✓ • Saves time and trouble as new content is automatically downloaded. ✓ *(Do not accept Really Simple Syndication as an answer on its own.)*	2	4
5.5	5.5.1	URL refers to the address of a website/page/resource ✓ *(Do not accept Uniform Resource Locator as an answer on its own.)*	1	
	5.5.2	• Look through (browsing) history • Bookmarks • Favourites (Any 2) ✓✓	2	
	5.5.3	A search engine is a program/website that searches a database of registered sites/web pages ✓ for matches to text/words that are entered/input by the user. ✓	2	5
		Total		**26**

QUESTION 6

6.1	6.1.1	https indicates that the website is 'secure'/makes use of encryption to protect online transactions. ✓ *(Do not accept the expansion of the acronym as an answer.)*	1	
	6.1.2	• Banks do not contact customers via e-mail to ask them to log onto their website or to update their account • Spelling errors in the e-mail • Looks like a typical phishing scheme, etc. (Any 2) ✓✓	2	
	6.1.3	• Contact the bank • Check the actual web address by looking at the properties of the hyperlink • Check online to see if similar schemes are doing the rounds, etc. (Any 2) ✓✓	2	
	6.1.4	Phishing ✓	1	
	6.1.5	• Do not click on hyperlinks to gain access to banking websites • Type the name of the bank's URL in the web browser yourself • Make sure you have security software installed on your computer • Make sure the security software/system on your computer is frequently updated • Use good password practice • Be careful where and how you give out personal information • Read up on the latest trends in phishing, etc. (Any 2) ✓✓	2	8
6.2	6.2.1	• Can be done at any time (24/7/365) • Do not have to physically go to shop • Able to compare prices easily • Potentially lower prices • Can read reviews by other readers/see recommendations • Purchases delivered, etc. (Any 2) ✓✓	2	

	6.2.2	• Lower overhead costs (staffing, building, etc.) • Can potentially supply books at lower costs than conventional shops • Do not have to carry large stocks • Wider markets (Internet presence) • Easy to market • Can detect trends more easily • Can match customer's preferences with those of others • Whole system can be computerised/automated • Less bad debts (only credit cards are accepted) (Any 2) ✓✓	2	
	6.2.3	• Notification of transactions by SMS • Security features such as passwords/PIN numbers • On-screen key pad to enter PIN numbers (bypass keyboard loggers) • 'One-time' passwords used per session and sent to customer's cell phone • Use of secure protocols (https/SSL) • Automatic logging off of customer after period of time in a session, etc. (Any 2) ✓✓	2	6
6.3	6.3.1	Spam is unsolicited e-mails advertising products, etc. ✓ *(Also accept electronic junk mail as an answer.)*	1	
	6.3.2	• Avoid giving out e-mail address where possible • Make use of different e-mail addresses • Install anti-spam software • Use the anti-spam filters of your e-mail program • Make use of an ISP that filters for spam, etc. (Any 2) ✓✓	2	3
6.4	6.4.1	• You do not need the program in which the document was created to open it • The program needed to read these documents (Adobe Reader) is free • Users cannot (easily) make changes to the document • Adobe Reader is widely available, etc. (Any 2) ✓✓	2	

	6.4.2	• Each document (job) waiting to be printed is placed in a printer queue ✓ (per printer) on disk • This will show if the printing is still waiting in the queue, or it will display an error message ✓	2	
	6.4.3	• Check that the printer has paper • Check that the printer is online • Check for paper jams • Check if there is paper in the correct feeder tray • Check that there is toner/ink in the cartridges, etc. (Any 2) ✓✓	2	6
6.5		• Cross-reference the information with other sources • Check that the publication date is recent • Check if the information comes from a credible source • Look critically at the spelling and grammar for credibility • Check to see that the document is not biased or opinion-based • Check the credentials of the author(s) • Check the links given to other sources, etc. (Any 3) ✓✓✓		3
		Total		**26**

QUESTION 7

7.1	• The language is set as 'US/American' English ✓ • Change language setting to 'UK' or 'South African English' ✓			2
7.2	• Program is in overtype mode ✓ where existing characters are replaced with newly typed characters • Change to 'insert' mode ✓ *(Also accept descriptions on how to get out of overtype mode e.g. double-click on the OVR on the status bar.)*			2
7.3	• Bookmarks • Hyperlinks • Use Find/Replace option if text is known (Any 2) ✓✓			2
7.4	Use the 'match case' option ✓so that only occurrences of the word which match the specified capitalisation are replaced *(Also accept using the Find and Replace function to replace each word separately.)*			1
7.5	• The captions are always consistently positioned • The format of the captions is always consistent • Captions will update when any relevant change is made in the document • Will show in any table of figures(images)/graphs/tables • Captions are automatically numbered consecutively (Any 2) ✓✓			2
7.6	7.6.1	SUM ✓	1	
	7.6.2	COUNTIF ✓	1	
	7.6.3	COUNT ✓	1	
	7.6.4	LEFT or MID ✓	1	
	7.6.5	MODE ✓	1	5
7.7	• Change page orientation from portrait to landscape (or vice versa) • Choose the 'fit to one page' print option • Reduce the sizes of the margins • Use auto-width option/make columns narrower • Try and wrap headings where possible (Any 2) ✓✓			2

7.8	7.8.1	A wizard is a step by step ✓ guide/program that helps you create your own document/form/report, etc. ✓ *(Do not accept 'program' as an answer on its own.)*	2	
	7.8.2	• Can add instructions on how to enter records (which format to be used, etc.) • Can create form to mirror the hardcopy form to facilitate data capturing • Can restrict which field the user can/has to enter data into • Easier to work with as only one record at a time is shown • Can add controls (drop down lists, etc. to facilitate data capturing, etc.) (Any 2) ✓✓	2	
	7.8.3	A numerical field will discard any leading zeroes ✓ (whereas a text field will retain the leading zero)	1	
	7.8.4	• No records will be displayed ✓ • No value can be both greater than 10 and less than or equal to 1 at the same time ✓	2	7
7.9	7.9.1	Will display the total number ✓ of records listed in the report ✓	2	
	7.9.2	Will display the number of records per group ✓ (of the field that the records are grouped on)	1	3
		Total		**26**

TOTAL SECTION B:　130
GRAND TOTAL:　150