



# basic education

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

## **NATIONAL SENIOR CERTIFICATE**

**GRADE 12**

**COMPUTER APPLICATIONS TECHNOLOGY P2**

**(THEORY)**

**FEBRUARY/MARCH 2012**

**MEMORANDUM**

**MARKS: 150**

**This memorandum consists of 10 pages.**

**SUGGESTIONS AND RECOMMENDATIONS TO MARKERS**

- Revisit the 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.
- 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 focus on keywords or general statements, but rather read the entire answer. If in doubt, read the entire answer and then go back to the question paper and memorandum. Ask yourself or your chief marker if the new response could 'fit' into the memorandum to allocate the correct marks to the candidate.

**SECTION A****QUESTION 1:  
MATCHING ITEMS**

1.1	E	✓	(1)
1.2	C	✓	(1)
1.3	N	✓	(1)
1.4	R	✓	(1)
1.5	B	✓	(1)
1.6	P	✓	(1)
1.7	A	✓	(1)
1.8	L	✓	(1)
1.9	M	✓	(1)
1.10	I	✓	(1)
<b>Total: 10</b>			

**QUESTION 2:  
MULTIPLE-CHOICE QUESTIONS**

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

**TOTAL SECTION A: 20**

**SECTION B****QUESTION 3**

3.1	It provides more USB ports ✓ <i>(Also accept: Can insert more USB devices or provide more accessible USB ports)</i>		1	1
3.2	<ul style="list-style-type: none"> <li>• The RAM/Memory ✓</li> <li>• CPU/Processor ✓</li> </ul> <i>(Accept: Motherboard)</i>		1 1	2
3.3	Provides stable power for a limited period ✓ to keep computer running for a period of time after a power failure ✓ <b>OR</b> A UPS is used to smooth the power limiting 'brown-outs', i.e. dips or spikes  <i>(Also accept: To give time to shut down the computer)</i> <i>(Also accept: To provide protection against power surges)</i>		1 1	2
3.4	3.4.1	It does all the processing on the computer ✓	1	
	3.4.2	The CPUs must be compatible ✓/fit on the motherboard	1	2
3.5	3.5.1	Chatting and seeing another person over the Internet ✓/video conferencing  <i>(Also accept: Skyping)</i>  Live coverage of a place, e.g. surveillance at the charity shop ✓	1  1	
	3.5.2	Speakers or earphones  <i>(Also accept: Headset)</i>  ✓ (Any one)	1	
	3.5.3	VoIP <b>OR</b> Internet telephony <i>(Accept: Skype, etc.)</i>  ✓ (Any one)	1	4
3.6	<ul style="list-style-type: none"> <li>• Scanning/Copying</li> <li>• E-mailing</li> <li>• Converting to PDF</li> <li>• Faxing</li> </ul> <i>(Do not accept printing as an answer)</i>  ✓ ✓ (Any two)		2	2

3.7	<ul style="list-style-type: none"> <li>• Printing carbon copies</li> <li>• Printing using continuous paper</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	1	1	
3.8	<ul style="list-style-type: none"> <li>• Make greater use of electronic copies/communication</li> <li>• Proofread documents on-screen before printing</li> <li>• File hard copies</li> <li>• Use a photocopier for multiple copies, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	2	
3.9	3.9.1	Every photograph is made up of pixels ✓ (picture cells/elements). The higher the number of pixels, the better the quality/resolution of the photograph. ✓	1 1	
	3.9.2	The camera is set to a high resolution, resulting in the photographs taking up a lot of space on the card. ✓ Reduce the resolution/use a compressed picture format (JPEG, etc.). ✓	1 1	
	3.9.3	<ul style="list-style-type: none"> <li>• Via USB cable</li> <li>• Wirelessly (Bluetooth or Infrared)</li> <li>• Placing the memory card into a card reader attached to the computer</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	6
3.10	The external hard drive ✓ because neither of the other two will be big enough to save all the files ✓	1 1	2	
3.11	<ul style="list-style-type: none"> <li>• LCD screens use much less power</li> <li>• Contains fewer materials hazardous to the environment</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	1	1	
<b>Total</b>			<b>[25]</b>	

**QUESTION 4**

4.1	<ul style="list-style-type: none"> <li>• Not enough RAM</li> <li>• Not enough hard-drive space</li> <li>• CPU too slow, etc.</li> </ul> <p><i>(Accept any other correct answer)</i></p> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	2
4.2	Customise the program to suit her needs ✓  <i>(Accept: Has access to the source code in open-source software and no access in the code of proprietary software)</i>	1	1

4.3	4.3.1	<ul style="list-style-type: none"> <li>• A problem is preventing your computer from starting normally.</li> <li>• Computer could not shut down correctly (e.g. power failure.) ✓ (Any one)</li> </ul>	1	
	4.3.2	Safe mode starts your computer in a limited state/with only basic files and drivers necessary to start up ✓ in order to fix/diagnose a problem. ✓	1 1	3
4.4		Operating system software allows you to manage the computer. ✓ You need other programs to perform tasks. ✓ Any suitable example such as word processing, spreadsheets, accounting and games, etc. ✓	1 1 1	3
4.5	4.5.1	They may have private or confidential content ✓ <b>OR</b> preventing others from accessing her files	1	
	4.5.2	<ul style="list-style-type: none"> <li>• At least 8 characters/the longer the better</li> <li>• Use a combination of characters, letters and numbers</li> <li>• Never use easily identifiable information (ID or telephone numbers, or pets' names, etc.)</li> <li>• Use a mixture of upper case and lower case letters, etc.</li> </ul> <p>(Do not accept: Changing passwords frequently)</p> <p>✓ ✓ (Any two)</p>	2	3
4.6	4.6.1	New viruses are developed on a regular basis. ✓ Updates will allow the antivirus program to recognise them. ✓	1 1	
	4.6.2	The virus is isolated ✓ on/sent to a separate area/part of the hard disk from where it cannot infect the other files. ✓  (Also accept: If virus cannot be removed, for one mark)	1 1	
	4.6.3	Malware ✓	1	5
4.7		Software piracy ✓	1	1
4.8		A firewall controls access ✓ to and from a computer and a network/the Internet. ✓	1 1	2
4.9		Defragmenting ✓ /Defragmentation	1	1

4.10	4.10.1	<ul style="list-style-type: none"> <li>Computers could be stolen</li> <li>Data files may be corrupted by viruses</li> <li>May overwrite a file by mistake</li> <li>Hard drive might crash, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	
	4.10.2	<p>Cellphones/mp3 players/iPod/E-books, etc.</p> <p style="text-align: right;">✓ (Any one)</p> <p>Address book/Messages/Appointments/Music/Videos/E-books</p> <p style="text-align: right;">✓ (Any one to match the device)</p>	1	
			1	4
<b>Total</b>				<b>[25]</b>

**QUESTION 5**

5.1	5.1.1	<ul style="list-style-type: none"> <li>Network Interface Card (NIC)</li> <li>Network cables</li> <li>A hub/switch</li> <li>Wireless access points, etc.</li> </ul> <p><i>(Do not accept: Computers)</i></p> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	
	5.1.2	<ul style="list-style-type: none"> <li>To share hardware, such as printers</li> <li>To share some programs</li> <li>Access the Internet over only one connection point</li> <li>Share the data and information</li> <li>Easier to administer/control than stand-alone machines</li> <li>Better security, etc.</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	1	
	5.1.3	<ul style="list-style-type: none"> <li>No cabling would be needed</li> <li>Computers/Laptops may be moved around within the shop</li> <li>Easy to add/connect additional equipment to the network, etc.</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	1	4

5.2	5.2.1	<ul style="list-style-type: none"> <li>• It is relatively easy to install.</li> <li>• It is the least expensive way to set up a small network.</li> <li>• All the computers on the network can share any peripheral device connected to any of the computers in the network.</li> <li>• Easy to administer, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	
	5.2.2	<ul style="list-style-type: none"> <li>• The security is weak on a peer-to-peer network.</li> <li>• Policies, such as network security, have to be applied to each computer separately.</li> <li>• Backup has to be performed on each computer separately.</li> <li>• No centralised server is available to manage and control access of data.</li> <li>• Users have to use separate passwords on each computer in the network.</li> <li>• Malware can spread quickly, etc.</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	1	3
5.3		<ul style="list-style-type: none"> <li>• Marketing/Advertising reasons</li> <li>• E-communication such as e-mail with clients</li> <li>• Specific services such as e-banking</li> <li>• Search for information on the Internet, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	2
5.4		<ul style="list-style-type: none"> <li>• Modem (<i>Accept: Dial-up modem</i>)</li> <li>• Router (DSL/ADSL)</li> <li>• 3G modem/dongle</li> <li>• Cellphone/smart phone, etc.</li> </ul> <p style="text-align: right;">✓ ✓ ✓ (Any three)</p>	3	3
5.5	5.5.1	<p>High speed/Fast High bandwidth connection to the Internet Permanently connected to the Internet</p> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	
	5.5.2	<p>Slower speed is for uploading ✓ and the faster speed is for downloading ✓</p> <p><i>(Do not accept: Downloading and uploading only)</i></p> <p><i>(Accept: Specific speeds as long as the download speed is faster than the upload speed)</i></p>	1 1	
	5.5.3	<p>The cost of the ISP ✓ Line rental ✓</p>	1 1	6
5.6		<ul style="list-style-type: none"> <li>• Your data is only accessible if you are connected to the Internet.</li> <li>• If the connection is slow it will take a long time to download/open your files.</li> <li>• Security/privacy issues, etc.</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	1	1

5.7	5.7.1	Web browser ✓ ( <i>Do not accept: Brand names</i> )	1	
	5.7.2	The intranet is only accessible to members of an organisation ✓ while the Internet is accessible to everyone. ✓	1 1	3
5.8	It is an (informal) online ✓ diary/journal. ✓		2	2
5.9	Online auction ✓ sites		1	1
			<b>Total</b>	<b>[25]</b>

**QUESTION 6**

6.1	6.1.1	Action: Delete/Ignore/Report it to bank ✓ Aim: Any answer related to identity theft ✓	1 1	
	6.1.2	Phishing ✓	1	3
6.2	Poor netiquette/Writing in capital letters is like shouting/It is rude. ✓		1	1
6.3	<ul style="list-style-type: none"> <li>• Scan for viruses before sending</li> <li>• Add meaningful subject lines</li> <li>• Be short and concise</li> <li>• Do not gossip</li> <li>• Only maintain the communication threads that are relevant</li> <li>• Limit the size of attachments, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>		2	2
6.4	6.4.1	An executable file/a file that is an application ✓ or program	1	
	6.4.2	Her computer could be infected by a virus. ✓	1	2
6.5	<ul style="list-style-type: none"> <li>• You have to be online to access your e-mail.</li> <li>• Irritating advertisements sometimes pop up.</li> <li>• Webmail sites may distribute their address lists which could cause you to receive a lot of spam, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>		2	2
6.6	6.6.1	<ul style="list-style-type: none"> <li>• To find friends/socialise</li> <li>• To share photographs/videos</li> <li>• Online chatting</li> <li>• 'Twitter' type of facility with status updates</li> <li>• To advertise/post events, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	
	6.6.2	<ul style="list-style-type: none"> <li>• Do not give out personal information (addresses/telephone numbers, etc.).</li> <li>• Do not accept friend requests from people you do not know.</li> <li>• Use the settings of the facility to restrict access to your profile, etc.</li> <li>• Never meet people you have met on a social networking site alone or in a private place, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	4

6.7	6.7.1	It costs much less. ✓	1	
	6.7.2	<ul style="list-style-type: none"> <li>Learners will only receive the message if they are logged on.</li> <li>Learners may not use Mxit/have it installed, etc.</li> </ul> ✓ (Any one)	1	2
6.8		During tests/examinations ✓ because: <ul style="list-style-type: none"> <li>Learners may use IM/Mxit to cheat on papers by sending one another the answers.</li> <li>Learners may store answers on cellphones.</li> <li>Learners may 'Google' for answers during the exam.</li> <li>There are disturbances with cellphones ringing, etc.</li> </ul> (Any one reason ✓)	1	2
6.9		It is an audio file ✓ available on the Internet. ✓	1	2
6.10	6.10.1	She had to use the Google search engine ✓ to find the answer. ✓	1	
	6.10.2	Check whether: <ul style="list-style-type: none"> <li>The website has authority (like a university or well-known encyclopaedia)</li> <li>The information is recent/current</li> <li>The same information is found on other sites</li> <li>There is bias</li> <li>Sources are given</li> </ul> ✓ ✓ (Any two)	2	4
6.11	6.11.1	A wiki is a website ✓ where the content is created by multiple ('public') users. ✓	1	
	6.11.2	All of the articles in Encarta ✓ are formally moderated, and are likely to have more accurate information./ Although some of the articles in Wikipedia are also moderated, anybody can add to most of the articles in Wikipedia. ✓	1	4
		<b>Total</b>		<b>[28]</b>

**QUESTION 7**

7.1		Alignment, insert graphic, WordArt, change background, insert Drop Cap, borders, page orientation; spacing <i>(Accept any other valid answer, except where the response refers to fonts)</i> ✓ ✓ ✓ (Any three)	3	3
7.2		PDF ✓	1	1
7.3	7.3.1	Footnote ✓	1	
	7.3.2	Styles ✓	1	
	7.3.3	Bookmark ✓ <b>OR</b> Hyperlink	1	
	7.3.4	Replace whole words only ✓	1	4

7.4	7.4.1	Import to the database ✓ <b>OR</b> Copy and paste the entire file	1	
	7.4.2	<ul style="list-style-type: none"> <li>• Databases lend themselves toward querying text data.</li> <li>• Databases are meant for working with large numbers of records.</li> <li>• It provides tools to minimise errors during data capturing.</li> <li>• Default values can be assigned.</li> <li>• Can produce printable reports, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	3
7.5	7.5.1	Text ✓ 10 ✓	1 1	
	7.5.2	Date/Time ✓ <b>OR</b> Text	1	
	7.5.3	Input mask ✓	1	4
7.6	7.6.1	Signifies any number of characters ✓	1	
	7.6.2	*/04/27 ✓ (Accept: 27/04/*)	1	2
7.7	7.7.1	COUNT ✓	1	
	7.7.2	Report footer ✓	1	
	7.7.3	Create a query ✓ which shows the details of the Grade 12 learners ✓	1 1	
	7.7.4	Grouping places records together ✓ which have the same value for a specific field. ✓	1 1	6
7.8	7.8.1	Conditional formatting ✓	1	
	7.8.2	COUNTIF will only count the number of times Mabu worked ✓ (and not add the hours ).	1	
	7.8.3	SUMIF ✓	1	3
7.9	(Chart) wizard ✓		1	1
			<b>Total</b>	<b>[27]</b>

**TOTAL SECTION B: 130**  
**GRAND TOTAL: 150**