



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE EXAMINATIONS

COMPUTER APPLICATIONS TECHNOLOGY P2

2016

MARKS: 150

TIME: 3 hours

This question paper consists of 16 pages.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of:

SECTION A (25 marks)
SECTION B (75 marks)
SECTION C (50 marks)
2. Answer ALL the questions.
3. Number the answers correctly according to the numbering system used in this question paper.
4. Start EACH question on a NEW page.
5. Do NOT write in the right-hand margin of the ANSWER BOOK.
6. Leave a line after EACH subquestion.
7. Generally, one mark is allocated per fact; therefore, a 2-mark question would usually require TWO facts, et cetera.
8. Write neatly and legibly.

SECTION A**QUESTION 1: MATCHING ITEMS**

Choose a term/concept from COLUMN B that matches the description in COLUMN A. Write only the letter (A–S) next to the question number (1.1–1.10) in the ANSWER BOOK, for example 1.11 T.

COLUMN A		COLUMN B	
1.1	An example of a broadband connection	A	Trojan
1.2	Additional information in a file or document, such as the name of the author	B	GPS
1.3	A technology used to determine one's geographical location	C	FTP
1.4	The use of many computers in a network to collectively solve a problem	D	multi-processing
1.5	A feature of an e-mail application that organises messages according to the user's preferences	E	LTE
1.6	A harmful program disguised to look like a trustworthy or useful application	F	RAM
1.7	Memory that contains the start-up instructions of a computer used to load the operating system	G	metadata
1.8	The part of a file name that identifies the type of file	H	netbook
1.9	A very powerful type of portable computer with reduced power consumption	I	dial-up
1.10	An example of an online storage facility or service	J	Dropbox
		K	grid computing
		L	ultrabook
		M	NFC
		N	VoIP
		O	mail rule
		P	hard drive
		Q	worm
		R	ROM
		S	extension

(10 x 1)

[10]

QUESTION 2: MULTIPLE-CHOICE QUESTIONS

Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (2.1–2.10) in the ANSWER BOOK, for example 2.11 D.

- 2.1 To receive the most relevant web search results, one needs to enter specific ...
- A keywords.
 - B tab settings.
 - C forms.
 - D HTML tags. (1)
- 2.2 Which ONE of the following refers to the orientation of a page in a word processing document?
- A Section break
 - B Margins
 - C Indent
 - D Landscape (1)
- 2.3 Which ONE of the following word processing features would you use to look up words with the same or the opposite meaning?
- A Index
 - B Sources
 - C Bookmarks
 - D Thesaurus (1)
- 2.4 Magnifier is a(n) ... feature in Windows.
- A security
 - B update
 - C accessibility
 - D maintenance (1)
- 2.5 Which ONE of the following is a principle that refers to the effect of human error on output?
- A LIFO
 - B SOHO
 - C GIGO
 - D I/O (1)

- 2.6 Which ONE of the following may be used as a form of biometric input?
- A Voice
 - B Stylus
 - C Braille
 - D Bandwidth
- (1)
- 2.7 Downloading and distributing a movie illegally is known as ...
- A recycling.
 - B piracy.
 - C hacking.
 - D cyberstalking.
- (1)
- 2.8 Which ONE of the following factors is, in general, the most likely to affect the quality of information obtained in a survey?
- A The number of people (respondents) participating in the survey
 - B The points of view of the people (respondents) participating in the survey
 - C The average age of the people (respondents) participating in the survey
 - D The gender of the people (respondents) participating in the survey
- (1)
- 2.9 A circular reference is an error where a spreadsheet formula refers to ...
- A another cell in a worksheet without using absolute cell referencing.
 - B a merged cell in the same spreadsheet.
 - C the same cell in which the formula is stored.
 - D a cell formatted with the incorrect number of decimal places.
- (1)
- 2.10 Which ONE of the following options is NOT an example of portable storage?
- A USB flash drive
 - B Cloud storage
 - C External 2.5" HDD
 - D CD
- (1)
- [10]**

QUESTION 3: TRUE/FALSE ITEMS

Indicate whether the following statements are TRUE or FALSE. Choose the answer and write 'true' or 'false' next to the question number (3.1–3.5) in the ANSWER BOOK. Correct the statement if it is FALSE. Change the underlined word(s) to make the statement TRUE. (You may not simply use the word 'NOT' to change the statement. NO mark will be awarded if only FALSE is written down.)

EXAMPLES:

QUESTION	ANSWER
<u>Google</u> is the world's most popular search engine.	True
An <u>NIC</u> has slots for hardware components such as the CPU.	False – motherboard

- 3.1 The Read Only property can be applied to a file to prevent any changes being made to the file. (1)
- 3.2 An e-mail request with a link to update one's banking password is known as spamming. (1)
- 3.3 The Disk Cleanup utility helps one to close a non-responding application. (1)
- 3.4 CTRL+A is a keyboard shortcut often used for selecting the entire contents of a document. (1)
- 3.5 The size of a screen is measured by the number of horizontal and vertical pixels. (1)

[5]**TOTAL SECTION A: 25**

SECTION B**QUESTION 4: SYSTEMS TECHNOLOGIES**

- 4.1 Name TWO ways in which a printer can be connected to a computer. (2)
- 4.2 Give ONE possible cause of a printer not working, even though it is switched on and online. (1)
- 4.3 State TWO advantages of convergence for the ordinary user. (2)
- 4.4 Identify the image below that appears on a school's newsletter AND explain how it would be used by referring to a suitable example. (3)
- A square QR code with three large square markers in the corners, used for digital linking or information access.
- 4.5 A solid-state drive (SSD) is used in a computer instead of a hard disk drive (HDD). (3)
- 4.5.1 State TWO benefits of an SSD over an HDD. (2)
- 4.5.2 Why have SSDs not completely replaced HDDs, even though they have so many benefits? Do NOT refer to cost in your answer. (1)
- 4.6 Explain the difference between a *software bug* and a *virus*. (2)
- 4.7 Explain how an *Android phone* differs from a *Windows phone*, besides cost or the fact that they are made by different companies. (2)
- 4.8 What does it mean if a printer is marked as the default printer? (1)
- 4.9 Backup is important to ensure that data is not lost. (2)
- 4.9.1 Explain why a backup should NOT be stored in the same location as the original data, besides the fact that it would take up additional space. (1)
- 4.9.2 Name a storage device that would be suitable to use to back up data larger than 1 TB (terabyte). (1)
- 4.10 State TWO advantages of scheduling software updates to run at night. (2)

- 4.11 Give TWO possible ways to improve computer performance without replacing any hardware. (2)
- 4.12 State TWO advantages of using web-based applications instead of applications installed locally on a computer. (2)
- 4.13 You need to create an electronic copy of a printed document, but do not have access to a scanner.
- Suggest ONE way to create an electronic copy of the document without using a scanner. (1)
- [25]**

QUESTION 7: SOCIAL IMPLICATIONS

- 7.1 Give ONE reason why some people do not use online government services, such as eFiling from SARS. (1)
- 7.2 Many cameras have the capability to 'geotag' photographs.
- 7.2.1 Explain the term *geotagging*. (1)
- 7.2.2 Why do some game reserves discourage visitors from placing geotagged photographs of rhinos on social media? (1)
- 7.3 Suggest TWO ways to reduce the amount of spam arriving in your e-mail inbox. (2)
- 7.4 State ONE possible way of preventing other users from tagging you in photographs on Facebook. (1)
- 7.5 Give TWO advantages of using social networks for businesses. (2)
- 7.6 State TWO advantages of cars that are connected to the Internet. (2)
- [10]**

QUESTION 8: SOLUTION DEVELOPMENT

8.1 Study the screenshot below and answer the questions that follow.

8.1.1 Cells **C4:C9** should display the relevant unit price from the data in the cell range **A12:B15**, depending on the value in column A.

	A	B	C
1	Wood prices		
2			
3	Wood Types	Length	Unit price
4	Pine	2.4	#N/A
5	Oak	2.4	#N/A
6	Pine	3	#N/A
7	Pine	2.4	#N/A
8	Oak	4.2	#N/A
9	Bluegum	4.2	#N/A
10			
11			
12	Price per unit		
13	Pine	R 55.00	
14	Oak	R 79.00	
15	Bluegum	R 71.00	

The following function was used incorrectly in cell **C4**:

=VLOOKUP(B4,\$A\$13:\$B\$15,1)

Identify the TWO errors in the function. (2)

8.1.2 Why will the formula = **A4*B4** produce an error message? (1)

8.2 What is the difference in use between the *COUNT* and the *COUNTA* spreadsheet functions? (2)

8.3 Why should one use the *ROUND* function in a spreadsheet to round off numbers, instead of just formatting the numbers? (1)

- 8.4 In each of the following cases, name the word processing feature that must first be used or applied before it will work:
- 8.4.1 Automatic table of contents (1)
- 8.4.2 Automatic bibliography (1)
- 8.5 Give an example of a program (NOT a website) that can be used to edit HTML files. (1)
- 8.6 What is the relationship between a web page and a website? (1)
- 8.7 What is the connection between the <head> section of an HTML web page and the information displayed in the browser tab? (1)
- 8.8 Identify TWO mistakes in the following HTML code:
- ```

Item 1
Item 2

```
- (2)
- 8.9 What is the main reason for using a form in a database? (1)
- 8.10 The following appeared in a query:
- Total: [T1]+[T2]
- What effect does a calculation in a query have on the values in a database table? (1)

**[15]****TOTAL SECTION B: 75**

**SECTION C****QUESTION 9: INTEGRATED SCENARIO**

You have been given the opportunity to work at a local cellphone shop. The manager of the store knows about your CAT background and has asked you to help with some of the technical questions that might be asked by customers.

9.1 A smartphone with the following specifications is currently on special at the shop:

- Quad Core 1.7 GHz
- 2 GB RAM
- 16 GB internal storage
- MicroSD card slot (up to 128 GB)
- 5.0" Multi-Touch screen
- Android 5.1
- Bluetooth 4.1, 802.11 a/b/g/n
- 12 MP camera

Answer the following questions from customers:

- 9.1.1 What size screen does the device have? (1)
- 9.1.2 Explain what a *Multi-Touch screen* is. (1)
- 9.1.3 Give ONE example of an action that a Multi-Touch screen allows one to perform. (1)
- 9.1.4 The specifications above indicate that the smartphone has 16 GB of internal storage.
- Explain why less than 16 GB will be available, even when customers use the smartphone for the first time. (1)
- 9.1.5 How could customers add more storage capacity to the phone? (1)
- 9.1.6 Give TWO reasons why it is a good idea to upgrade to a smartphone with the same type of operating system. (2)
- 9.1.7 Name TWO basic functions of an operating system. (2)
- 9.1.8 Which specification above refers to resolution? (1)
- 9.2 Describe TWO ways in which the shop can get rid of old cellphones and cellphone parts responsibly. (2)
- 9.3 Describe how RFID tags could be used to prevent sample or 'demo' phones from being stolen from the shop. (2)

- 9.4 Customers are worried about security threats on their smartphones and tablets.

Briefly explain each of the following security threats:

9.4.1 E-mail spoofing (1)

9.4.2 Pharming (2)

9.4.3 Keylogging (1)

- 9.5 The computers in the shop are connected in a network.

9.5.1 Which type of computer in the network would provide resources and services to the other computers? (1)

9.5.2 Name TWO items needed for creating a network, other than computers and software. (2)

- 9.6 Give TWO reasons why a customer would use VoIP instead of a normal cellphone call. (2)

- 9.7 In order to receive feedback regarding customer satisfaction the manager has created a web page for customers to rate the service.

Name THREE design considerations the manager should keep in mind when designing the web page. (3)

- 9.8 The technician who repairs smartphones at the shop has decided to place basic tips on a blog, so customers can solve small problems themselves.

9.8.1 Give TWO reasons why he would use a blog instead of e-mail to distribute these tips. (2)

9.8.2 State TWO ways in which he could make sure that customers regularly visit the blog. (2)

- 9.9 A customer receives the following error message when trying to connect her smartphone to a laptop:

**'Driver not found'**

9.9.1 What is the purpose of a driver in a computer? (1)

9.9.2 State ONE possible way in which she can solve this problem without replacing any hardware. (1)

- 9.10 Some of the desktop computers in the shop need to be replaced.
- 9.10.1 State TWO possible disadvantages of using a wireless keyboard and mouse on the new computers, excluding theft. (2)
- 9.10.2 It is important to choose ergonomically designed devices.  
What does the term *ergonomic* mean in this context? (2)
- 9.10.3 State TWO advantages of replacing the desktop computers with laptops. (2)
- 9.10.4 Suggest TWO ways to prevent the laptops from being stolen. (2)
- 9.11 The owner has tried to create a basic website to advertise the current specials. Study the HTML code below.

```
<title>
 Current specials
 <hr />
</title>

<body>
 <h1> OUR BEST SPECIALS TO DATE! </h1>

 Come to our store now and save big!

</body>
```

Explain how you would correct the following mistakes:

- 9.11.1 The horizontal line is not displayed. (1)
- 9.11.2 The heading 'OUR BEST SPECIALS TO DATE!' should be smaller. (1)
- 9.11.3 The text 'Come to our store now and save big!' should be displayed in a red font, but it is displayed in black. (1)

9.12 A database was created to keep track of current stock levels at the shop.

9.12.1 Study the screenshot below and name the data type that should be used for the *Specifications* field to enter a large amount of text.

	Field Name	Data Type
🔑	Stock ID	AutoNumber
	Make	Text
	Model	Text
	Specifications	Text
	Cost Price	Currency
	Selling price	Currency

(1)

9.12.2 Why is the *Autonumber* data type always suitable to use for a primary key field? (1)

9.12.3 The query below was designed to show all items in stock where the make starts with the word *Smart* and the selling price is either less than R100 or more than R500.

Field:	Make	Specifications	Cost Price	Selling price
Table:	Stock	Stock	Stock	Stock
Sort:				
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:	"Smart"			<100
or:				>500

Identify TWO errors in the design of this query that are causing it to display the incorrect information. (2)

9.13 Briefly explain what each of the following would be used for in a word processing application:

9.13.1 Continuous section break (2)

9.13.2 Bookmark (1)

**TOTAL SECTION C: 50**  
**GRAND TOTAL: 150**



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## **SENIOR CERTIFICATE EXAMINATIONS**

**COMPUTER APPLICATIONS TECHNOLOGY P2**

**2016**

**MEMORANDUM**

**MARKS: 150**

**This memorandum consists of 15 pages.**

**SUGGESTIONS AND RECOMMENDATIONS TO MARKERS**

- Revisit the questions and the memorandum 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 memorandum. Ask yourself or your senior marker if the response could 'fit' into the memorandum before allocating the correct marks to the candidate. For example, the memorandum states '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	E	✓	1
1.2	G	✓	1
1.3	B	✓	1
1.4	K	✓	1
1.5	O	✓	1
1.6	A	✓	1
1.7	R	✓	1
1.8	S	✓	1
1.9	L/H	✓	1
1.10	J	✓	1
			<b>[10]</b>

**QUESTION 2: MATCHING ITEMS**

2.1	A	✓	1
2.2	D	✓	1
2.3	D	✓	1
2.4	C	✓	1
2.5	C	✓	1
2.6	A	✓	1
2.7	B	✓	1
2.8	A	✓	1
2.9	C	✓	1
2.10	B	✓	1
			<b>[10]</b>

**QUESTION 3: TRUE/FALSE ITEMS**

(Note to marker: In Question 3.2, 3.3 and 3.5, accept the correct term even if false is not stated. Do not award a mark if only 'FALSE' is written down.)

3.1	TRUE✓	1
3.2	FALSE, phishing✓	1
3.3	FALSE, Task Manager✓	1
3.4	TRUE✓	1
3.5	FALSE, resolution✓	1
		<b>[5]</b>

**TOTAL SECTION A: 25**

**SECTION B****QUESTION 4: SYSTEMS TECHNOLOGIES**

4.1	<ul style="list-style-type: none"> <li>• Bluetooth</li> <li>• Wi-Fi</li> <li>• NFC</li> <li>• Ethernet cable/Network cable</li> <li>• USB Cable</li> <li>• Parallel cable/LPT1</li> <li>• SCSI cable</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p> <p><i>(Note to marker: Do not accept a response of just 'cable'. Accept 'Wireless' only when no other specific wireless examples are listed. Accept 'Printer cable' only when no other specific cable examples are listed)</i></p>		2
4.2	<ul style="list-style-type: none"> <li>• Driver not installed</li> <li>• No paper in the tray/Incorrect paper size selected</li> <li>• Paper jam</li> <li>• Ink/Toner is finished</li> <li>• Not selected as the default printer/Printing to a different printer</li> <li>• Print job paused in the queue</li> <li>• Cable not connected, etc.</li> </ul> <p style="text-align: right;">✓ (Any one)</p>		1
4.3	<ul style="list-style-type: none"> <li>• Greater functionality on one device</li> <li>• Interoperability of some devices</li> <li>• Cheaper to buy one device</li> <li>• Less clutter on desk space</li> <li>• More efficient than using multiple devices</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		2
4.4	<p>QR/2D barcode ✓ code It would be scanned ✓ (by a cell phone) to reveal the text/information it contains. Any suitable example such as URL of school, etc. ✓</p>		3
4.5.1	<ul style="list-style-type: none"> <li>• Faster data access</li> <li>• Less susceptible to damage/No movable parts</li> <li>• Less power consumption</li> <li>• Smaller physical size</li> <li>• No noise</li> <li>• Compatible with many different computer types, etc.</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>	2	
4.5.2	<p>Currently/Generally SSDs are not readily available in as large a storage capacity ✓ as a traditional HDD</p> <p><i>(Note to marker: Do not accept any answer related to cost.)</i></p>	1	3

4.6	A bug is an error ('mistake') in the (programming) code of the software ✓ A virus is software that is written with (deliberate) malicious intent e.g. corrupting data/software, etc. ✓		2
4.7	The Android phone uses an open source ✓ operating system Windows phone uses a proprietary ✓ operating system.  (Notes to marker: <ul style="list-style-type: none"> <li>Do not accept any cost related answers or that different companies are involved.</li> <li>Accept reference to different types of applications available on the different operating systems.</li> <li>Accept an answer that refers to differences in the OS.)</li> </ul>		2
4.8	Printing tasks would automatically be sent to that printer ✓ (unless another printer is selected).		1
4.9.1	The backup may be lost with the original files, ✓ e.g. if the room burnt down, devices were stolen, etc.	1	2
4.9.2	<ul style="list-style-type: none"> <li>External hard drive/Magnetic tape</li> <li>NAS (Network attached storage) Drive</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	1	
4.10	<ul style="list-style-type: none"> <li>Uses bandwidth at a time when there is a low demand for bandwidth from the system (will not contribute to throttling or shaping)</li> <li>Many ISPs don't charge for data in off peak hours</li> <li>There will be no updates running on the machines during working hours (and slowing it down) while users are trying to work</li> <li>Will not be asked to restart the computer for the installation of updates while they are using the computer for other tasks during working hours</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p> <p>(Note to marker: Accept any suitable examples to illustrate the concepts mentioned above.)</p>		2
4.11	<ul style="list-style-type: none"> <li>Defragment the drive</li> <li>Run Disk Cleanup</li> <li>Remove malware</li> <li>Delete unused files</li> <li>Re-install the operating system</li> <li>Reduce the number of programs running in the background/that load at start up</li> <li>Updating software/drivers</li> <li>Use software packages/versions that are less resource intensive</li> <li>Format the hard drives and reinstall, etc.</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p> <p>(Note to marker: Accept any suitable software or configuration setting that reduces the demand on the CPU)</p>		2

4.12	<ul style="list-style-type: none"><li>• Can be accessed anywhere on any computer with Internet access</li><li>• Saves space on the local machine</li><li>• Web applications are continually updated to new versions</li><li>• Better integration with cloud storage</li><li>• Reduced demand on local processor</li><li>• Cross-platform (because a browser is used), etc.</li></ul> <p style="text-align: right;">✓✓ (Any two)</p>		2
4.13	<ul style="list-style-type: none"><li>• Take a picture with a camera/smartphone/tablet</li><li>• Fax to e-mail</li></ul> <p style="text-align: right;">✓ (Any one)</p>		1
			<b>[25]</b>

**QUESTION 5: INTERNET AND NETWORK TECHNOLOGIES**

5.1	<ul style="list-style-type: none"> <li>• Sharing of hardware</li> <li>• Sharing of software/Updates</li> <li>• Social networking/Gaming</li> <li>• Sharing an Internet connection</li> <li>• Centralised security</li> <li>• Centralised data storage</li> <li>• Distributing workload, etc.</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p> <p><i>(Note to marker: Accept suitable examples of tasks or technologies, e.g. file sharing, grid-computing, sharing printers.)</i></p>		2
5.2	<p>Read receipts/Delivery reports/</p> <p style="text-align: right;">✓ (Any one)</p> <p><i>(Note to marker: Accept specific indications of read receipts/reports in a particular app e.g. Blue ticks in WhatsApp)</i></p>		1
5.3	<p>(Online) Advertising/ads✓</p>		1
5.4	<ul style="list-style-type: none"> <li>• Range is limited</li> <li>• Number of devices that can be linked is limited</li> <li>• Potential security issues, etc.</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p> <p><i>(Note to marker: Do not accept device/brand compatibility issues)</i></p>		2
5.5	<ul style="list-style-type: none"> <li>• Video/Audio Streaming</li> <li>• Video/Multimedia/VoIP ('Skyping')</li> <li>• Large downloads</li> <li>• Torrents</li> <li>• Gaming, etc.</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p> <p><i>(Note to marker: Accept answers that refer to applications of the 'always on' aspect of broadband e.g. push technology, etc.)</i></p>		2
5.6	<ul style="list-style-type: none"> <li>• Save cap/data bundle</li> <li>• Much faster upload/Save time during upload/Single file upload</li> <li>• Uses less online storage space</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		2

5.7	<ul style="list-style-type: none"> <li>• Security protocols, e.g. https</li> <li>• Digital signature</li> <li>• Digital certificate</li> <li>• Encryption/SSL</li> <li>• Firewall</li> <li>• Anti-spyware/Antivirus</li> <li>• Use Tor browsers</li> <li>• Managed routers</li> <li>• VPN</li> </ul>	✓ (Any one)	1
5.8	Wi-Fi/802.11 a/b/g/n/Wireless✓		1
5.9	<ul style="list-style-type: none"> <li>• Could carry malware</li> <li>• Irritating/Distracting/Annoying</li> <li>• Save on bandwidth/data</li> </ul>	✓✓ (Any two)	2
5.10	Keeps track of pages visited.✓  (Note to marker: Accept any reference to locating pages previously visited.)		1
			<b>[15]</b>

**QUESTION 6: INFORMATION MANAGEMENT**

6.1	<p>Survey – A set of written/typed questions given to many or a group of people✓</p> <p><b>AND</b></p> <p>Interview:</p> <ul style="list-style-type: none"> <li>• A verbally administered set of questions</li> <li>• usually intended for one person (such as an expert)</li> </ul> <p style="text-align: right;">✓ (Any one)</p>		2
6.2	<ul style="list-style-type: none"> <li>• There are no 'outside' checks concerning what is posted on the Internet/Anyone can post anything, so it could be incorrect</li> <li>• Information may be presented with bias</li> <li>• Information may be out of date</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		2
6.3.1	Copyright – Legal restrictions on copying and distribution of intellectual material✓	1	
6.3.2	Plagiarism – Passing off someone else’s work as your own✓	1	2
6.4	<ul style="list-style-type: none"> <li>• Improved accuracy/ Data validation can be done/No issues with handwriting</li> <li>• Less time needed for data capture/Respondents may be more likely to complete/answer the survey</li> <li>• Data can be exported for analysis (e.g. into a spreadsheet) directly</li> <li>• Easier to ‘distribute’ survey/has a wider range of respondents, etc.</li> <li>• Green computing (e.g. saving paper)</li> </ul> <p style="text-align: right;">✓✓(Any two)</p> <p><i>(Note to marker: Accept answers relating to any type of electronic form, such as Google Docs, Microsoft Word forms, etc.)</i></p>		2
6.5	<ul style="list-style-type: none"> <li>• Neatness/legibility</li> <li>• It provides users with a check to see that they filled in the correct number of digits</li> </ul> <p style="text-align: right;">✓ (Any one)</p>		1
6.6	<ul style="list-style-type: none"> <li>• Sorting</li> <li>• Grouping</li> <li>• Filtering</li> <li>• Pivot tables</li> </ul> <p style="text-align: right;">✓ (Any one)</p> <p><i>(Note to marker: Do not accept 'Functions' or any particular example of a function.)</i></p>		1
			[10]

**QUESTION 7: SOCIAL IMPLICATIONS**

7.1	<ul style="list-style-type: none"> <li>• Trust issues</li> <li>• Lack of access to computers/Digital Divide</li> <li>• Connectivity issues</li> <li>• Users lack the confidence/skills level to use the services, etc.</li> </ul> <p style="text-align: right;">✓ (Any one)</p>		1
7.2.1	The GPS coordinates of where the photograph was taken is added✓ to the photograph's metadata.		1
7.2.2	The inclusion of the GPS coordinates may alert poachers of where✓ to find the rhino.		1
7.3	<ul style="list-style-type: none"> <li>• Create/use message rules</li> <li>• Apply a spam filter</li> <li>• Block addresses of known senders of spam</li> <li>• Install/use anti-spam software</li> <li>• Use an ISP that effectively blocks spam</li> <li>• Do not give your e-mail address/Give an alternative e-mail address to companies/people you suspect may send you spam</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		2
7.4	Adjust the settings✓ of your Facebook account to prevent being tagged (without permission) in photographs.		1
7.5	<ul style="list-style-type: none"> <li>• Wider audience/publicity</li> <li>• Cheap advertising</li> <li>• (Immediate) customer feedback</li> <li>• Cheap/Effective way of communicating directly with customers e.g. advertising, etc.</li> <li>• Targeted advertising, etc.</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		2
7.6	<ul style="list-style-type: none"> <li>• Use of GPS technology, e.g. directions</li> <li>• Use of the Internet, e.g. for the entertainment of the passengers</li> <li>• Updates to the car software</li> <li>• Traffic updates/information direct to the car</li> <li>• Remote monitoring for security/Vehicle tracking</li> <li>• Remote monitoring of performance/maintenance of the car, etc.</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		2
			<b>[10]</b>

**QUESTION 8: SOLUTION DEVELOPMENT**

8.1.1	The lookup value is incorrect✓/B4 should be A4 The column index of the lookup table is incorrect,✓ should be 2 <i>(Note to marker: Accept either the identification of the problem or the correct answer.)</i>	2	
8.1.2	The error occurs because the formula tries to multiply a number by text (a word).✓	1	3
8.2	COUNT counts cells that contains numerical values/numbers ✓ COUNTA counts cells that contain any value/that are not empty ✓		2
8.3	Formatting only gives the appearance of being rounded off, while the actual value is not changed/The ROUND function changes the actual value ✓		1
8.4.1	Styles ✓	1	
8.4.2	Manage sources/Source manager/Sources ✓	1	2
8.5	<ul style="list-style-type: none"> <li>• Any text editor such as Notepad</li> <li>• Any HTML editor such as Notepad++</li> <li>• Any word processor such as Microsoft Word</li> <li>• Coffee cup/kompozer</li> <li>• MS Expression Web</li> <li>• Dreamweaver, etc.</li> </ul> <p style="text-align: right;">✓ (Any one)</p> <p><i>(Note to marker: check on any other brand names given by the candidate).</i></p>		1
8.6	A web page is part of website/A website is a collection of web pages ✓		1
8.7	The text between title tags ✓within the head section is indicated in the browser tab		1
8.8	Not supposed to start with a closing tag Not supposed to end with an opening tag (The opening and closing) tags must match (either both ul or ol) <p style="text-align: right;">✓✓ (Any two)</p> <p><i>(Note to marker: Accept any correct example of HTML code)</i></p>		2
8.9	<ul style="list-style-type: none"> <li>• (More user-friendly way of) capturing of data/Designed for data capture</li> <li>• To display only one record at a time</li> <li>• To limit the fields displayed, etc.</li> </ul> <p style="text-align: right;">✓ (Any one)</p>		1
8.10	It has no effect on the values in the database table/The values in the database table remain the same✓		1
			<b>[15]</b>

**TOTAL SECTION B: 75**

**SECTION C****QUESTION 9: INTEGRATED SCENARIO**

9.1.1	5.0" (inches) ✓  (Note to marker: Accept 5 or 5.0 without the measurement unit.)	1	
9.1.2	A touch screen where more than one touch/finger at the same time can be detected. ✓	1	
9.1.3	<ul style="list-style-type: none"> <li>• Pinch</li> <li>• Stretch, etc.</li> </ul> <p style="text-align: right;">✓ (Any one)</p> (Note to marker: Accept any explanation of an action that requires more than one touch simultaneously, etc.)	1	
9.1.4	Some of the 16 GB is used for the operating system/other pre-installed applications ✓	1	
9.1.5	Insert a (MicroSD) Memory card/USB storage device (OTG)✓  (Note to marker: Do not accept cloud storage.)	1	
9.1.6	<ul style="list-style-type: none"> <li>• Familiar user interface/GUI</li> <li>• Compatibility of apps</li> <li>• Easier transfer of settings, files, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	
9.1.7	<ul style="list-style-type: none"> <li>• Booting the device</li> <li>• Provides a user interface</li> <li>• Allows for applications to be installed/used</li> <li>• Memory management</li> <li>• Storage management</li> <li>• File management</li> <li>• Installation and controlling of hardware devices</li> <li>• Provides basic security, e.g. usernames and passwords, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p> (Note to marker: Accept any one example (per bullet) that illustrates the answer, e.g. printer management.)	2	
9.1.8	12 MP ✓	1	10
9.2	<ul style="list-style-type: none"> <li>• Give the old cellphones/parts to someone who can still use them</li> <li>• Send to a recycling plant</li> <li>• Fix the old cellphones to be sold, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>		2
9.3	RFID tags can be attached to each phone✓. RFID scanners at the door could pick up the RFID tags if the phone leaves the shop ✓ (and activate an alarm).		2

9.4.1	(E-mail header is changed so that the) e-mail appears to be from a different source ✓	1	
9.4.2	User is redirected to different/fake ✓ website even though they enter the correct URL ✓ in their web browser	2	
9.4.3	Spyware/software which records/reports every keystroke a user makes ✓ and reports them to a third party.	1	4
9.5.1	Server ✓  (Note to marker: Accept specific examples, e.g. proxy server, etc.)	1	
9.5.2	<ul style="list-style-type: none"> <li>• Communication medium/Cables</li> <li>• Switch/Access points</li> <li>• NIC</li> <li>• Router</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	3
9.6	<ul style="list-style-type: none"> <li>• Cost is cheaper</li> <li>• Distance does not have an impact on cost</li> <li>• Calls can be made independent of the type of device the application has been installed on, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>		2
9.7	<ul style="list-style-type: none"> <li>• Easy to navigate/Consistent positioning of controls</li> <li>• Intuitiveness</li> <li>• Appropriate picture use</li> <li>• Colours are easy to distinguish</li> <li>• Large buttons/controls</li> <li>• Legible fonts</li> <li>• Screens should not be cluttered/Effective use of white space</li> <li>• Related options are grouped together, etc.</li> </ul> <p style="text-align: right;">✓ ✓ ✓ (Any three)</p>		3
9.8.1	<ul style="list-style-type: none"> <li>• Anybody can access a blog without having an e-mail address</li> <li>• Potential for advertising</li> <li>• No need to send multiple e-mails/limit on number of recipients in group e-mails</li> <li>• Easier to categorise different types of support</li> <li>• Always available for later reference</li> <li>• All posts are available in a single place, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	
9.8.2	<ul style="list-style-type: none"> <li>• Update content regularly</li> <li>• Make sure content is relevant/interesting</li> <li>• Use catchy titles</li> <li>• Provide RSS feeds</li> <li>• Use pictures/videos that helps support and explain the content</li> <li>• Interact with readers/comments/Respond to posts quickly, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	4

9.9.1	Allows for communication between the device and the operating system/Control of device ✓  (Note to marker: Do not accept plug and play.)	1	
9.9.2	<ul style="list-style-type: none"> <li>• Re-install drivers</li> <li>• Download correct drivers</li> <li>• Replace/Upgrade the operating system on the laptop, etc.</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	1	2
9.10.1	<ul style="list-style-type: none"> <li>• Batteries can go flat/Needs batteries</li> <li>• More expensive to purchase</li> <li>• Signal interference from other devices, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p> <p>(Note to marker: Do not accept theft.)</p>	2	
9.10.2	Designing devices/equipment to be comfortable✓ and prevent health issuessafe to use ✓  (Note to marker: Do not accept references to furniture)	2	
9.10.3	<ul style="list-style-type: none"> <li>• Work during load shedding/periods when the power is off</li> <li>• Workers can work at home/Workers can work from any location/Portability/Mobility</li> <li>• Occupy less physical space</li> <li>• Reduced carbon footprint</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p>	2	
9.10.4	<ul style="list-style-type: none"> <li>• Use a cable lock/chain to desk</li> <li>• Lock in a separate safe room</li> <li>• Put away in a secure laptop trolley</li> <li>• Room should be burglar guarded/gated</li> <li>• Install cameras</li> <li>• Use biometric security for access to the room</li> <li>• Install an alarm system, etc.</li> </ul> <p style="text-align: right;">✓ ✓ (Any two)</p> <p>(Note to marker: Focus must be on <u>prevention</u> of theft.)</p>	2	8
9.11.1	Place the <hr /> tag in the body of the HTML document ✓	1	
9.11.2	<ul style="list-style-type: none"> <li>• Use a font tag</li> <li>• Change the &lt;h1&gt; tags to a different ('smaller size') tags such as &lt;h2&gt; or &lt;h3&gt;, etc.</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	1	
9.11.3	colour should be color ✓	1	3
9.12.1	Memo/Long Text ✓	1	
9.12.2	Unique numbers are automatically assigned so that there can be no duplicate values ✓	1	4

9.12.3	<ul style="list-style-type: none"> <li>• "Smart" should be "Smart*" ✓/"Smart" should be followed by a wildcard/Like "Smart*"</li> <li>• "Smart*" should be in both criteria lines/Criteria for selling price should appear in same line and given as &lt;100 Or &gt;500 ✓</li> </ul>	2	
9.13.1	Starting a new section ✓ that's allows different page formatting/settings on the same page ✓	2	
9.13.2	Assign a name/'link' to a specific point in the document ✓ for quicker access/to which a hyperlink can be linked	1	3

**TOTAL SECTION C: 50**

**GRAND TOTAL: 150**