



# basic education

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

## **SENIOR CERTIFICATE EXAMINATIONS**

**COMPUTER APPLICATIONS TECHNOLOGY P2**

**2017**

**MARKS: 150**

**TIME: 3 hours**

**This question paper consists of 15 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. In general, a mark is allocated per fact. A 2-mark question would therefore require TWO facts, et cetera.
8. Write neatly and legibly.

**SECTION A****QUESTION 1: MULTIPLE-CHOICE QUESTIONS**

Various options are provided as possible answers to the following questions. Write down the question number (1.1–1.10), choose the answer and make a cross (X) over the letter (A–D) of your choice in the ANSWER BOOK.

**EXAMPLE:**

1.11

 A B C D

1.1 Which ONE of the following options best describes RAM?

- A Permanent
- B Temporary
- C Multi-core
- D Part of CPU

(1)

1.2 OCR software allows for ...

- A getting an editable version of a scanned document.
- B ordering printing supplies.
- C installation of drivers.
- D saving a word processing document as a web page.

(1)

1.3 Which ONE of the following devices allows a computer to safely shut down in the event of a power failure?

- A USB
- B GPU
- C PSU
- D UPS

(1)

1.4 Which ONE of the following data transmission technologies does NOT belong with the others?

- A Wi-Fi
- B 3G
- C Fibre
- D LTE

(1)

1.5 The same application can be used to open the file types ...

- A MP3 and PNG.
- B DOCX and RTF.
- C EXE and PDF.
- D ISO and ACCDB.

(1)

1.6 Wide usage of ICTs has resulted in ...

- A less advertising.
- B a decrease in processing speed.
- C a slowing down of the economy.
- D telecommuting.

(1)

1.7 Social engineering does NOT involve ...

- A running multiple programs at the same time.
- B looking at the screen over someone's shoulder.
- C an offer of help from a bystander at an ATM.
- D receiving e-mails from strangers.

(1)

1.8 Plagiarism can be defined as ...

- A the protection of intellectual rights.
- B allowing others to use your work.
- C passing off someone else's work as your own.
- D unauthorised access to information.

(1)

1.9 What concept is represented by the picture below?



- A Hardware
- B Ergonomics
- C Hacking
- D Biometrics

(1)

1.10 Which ONE of the following formulas gives the output in cell C2 below:

	A	B	C
1	Name	Grade	Code
2	Cebo	12	Ce12

- A =CONCATENATE(RIGHT(A2,2),B2)
- B =CONCATENATE(LEFT(B2,2),A2)
- C =CONCATENATE(LEFT(A2,2),B2)
- D =CONCATENATE(MID(A2,2,2),B2)

(1)  
[10]

**QUESTION 2: MATCHING ITEMS**

Choose a term/concept from COLUMN B that matches the description in COLUMN A. Write only the letter (A–T) next to the question number (2.1–2.10) in the ANSWER BOOK, for example 2.11 U.

COLUMN A		COLUMN B	
2.1	A program in an office suite where the copy-down/auto-fill feature is more likely to be used	A	ICASA
		B	CPU
2.2	A monitor specification indicating image quality	C	bias
		D	database
2.3	A critical component of a computing device	E	legacy form controls
2.4	An operator that allows a user to compare two values in conditional functions	F	webcam
		G	AND
2.5	A criterion used to check whether the source of information is objective	H	60 Hz
		I	currency
2.6	A technology to help avoid security threats on a network	J	resolution
2.7	A company that provides Internet connectivity	K	HTTPS
		L	infrastructure costs
2.8	A possible disadvantage of using cloud services	M	spreadsheet
2.9	A protocol that makes it more difficult for a hacker to see what a user is doing online	N	Wi-Fi hardware
		O	distance
2.10	A limitation of Bluetooth for data transfer	P	privacy concerns
		Q	firewall
		R	FTP
		S	greater than (>)
		T	ISP

(10 x 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

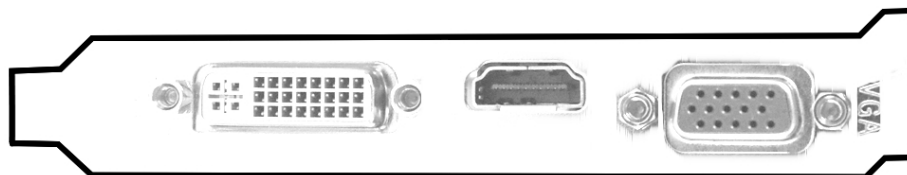
- 3.1 Facebook is the largest non-profit online encyclopaedia. (1)
- 3.2 Antivirus updates fix known bugs. (1)
- 3.3 The SUMIF function is an alternative to using nested IF statements. (1)
- 3.4 Reducing the size of attachments and not typing in capital letters are phishing rules. (1)
- 3.5 A minus operator before a key word will exclude search results containing that word. (1)

**[5]**

**TOTAL SECTION A: 25**

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

- 4.1 What is the difference in function between the Ctrl-X and Ctrl-C keyboard shortcuts? (1)
- 4.2 What is the function of the Recycle Bin on the desktop? (1)
- 4.3 State an advantage of distributed computing. (1)
- 4.4 Files with an HTML extension open in Notepad instead of a browser.  
Suggest a possible solution to this problem. (1)
- 4.5 Name TWO devices that allow a computer to communicate with other computers. (2)
- 4.6 Suggest a way to add a folder to a file. (1)
- 4.7 Create a strong password by applying at least FOUR rules. (Do NOT explain what these rules are.) (4)
- 4.8 There are different ways to connect a monitor to a computer. Study the picture below and answer the questions that follow.



- 4.8.1 What is the name of the component on which one will find the three ports shown above? (1)
- 4.8.2 Name the port shown in the middle. (1)
- 4.8.3 State TWO disadvantages of the port on the right. (2)
- 4.9 What type of input device is used to capture natural handwriting? (1)
- 4.10 Where would you commonly find new apps for a mobile device? (1)
- 4.11 You have downloaded an app that asks permission to access some data and features on your mobile device.  
Motivate why you would NOT grant an app certain permissions. (2)
- 4.12 State TWO hardware specifications to consider when buying a desktop computer, which will save you desk space. (2)

- 4.13 State TWO criteria, other than the name of the file, which can be used in Windows Explorer when searching for a file. (2)
- 4.14 Explain the purpose of system utilities and give an example. (2)
- [25]**

**QUESTION 5: INTERNET AND NETWORK TECHNOLOGIES**

- 5.1 Name the device that connects a LAN to the Internet. (1)
- 5.2 Give TWO advantages of a file server in a network. (2)
- 5.3 Name TWO types of network technologies that notebook computers support. (2)
- 5.4 You have two switches, each with four Ethernet ports.  
How would you go about connecting six computers in a network, using only these switches? (2)
- 5.5 Why would a 10 Mbps ADSL line be unsuitable for someone who needs an upload bandwidth of 10 Mbps? (2)
- 5.6 Why would one flag/star an e-mail? (1)
- 5.7 Broken hyperlinks on websites affect the user experience negatively.
- 5.7.1 Which aspect of a website could be compromised if it has broken hyperlinks? (1)
- 5.7.2 Give TWO reasons for broken hyperlinks on a web page. (2)
- 5.8 What is the minimum number of participants in a chat room, given its purpose? (1)
- 5.9 How is the Internet different from the World Wide Web? (1)
- [15]**

**QUESTION 6: INFORMATION MANAGEMENT**

6.1 Why must one include the URLs of websites used for research in your bibliography? (1)

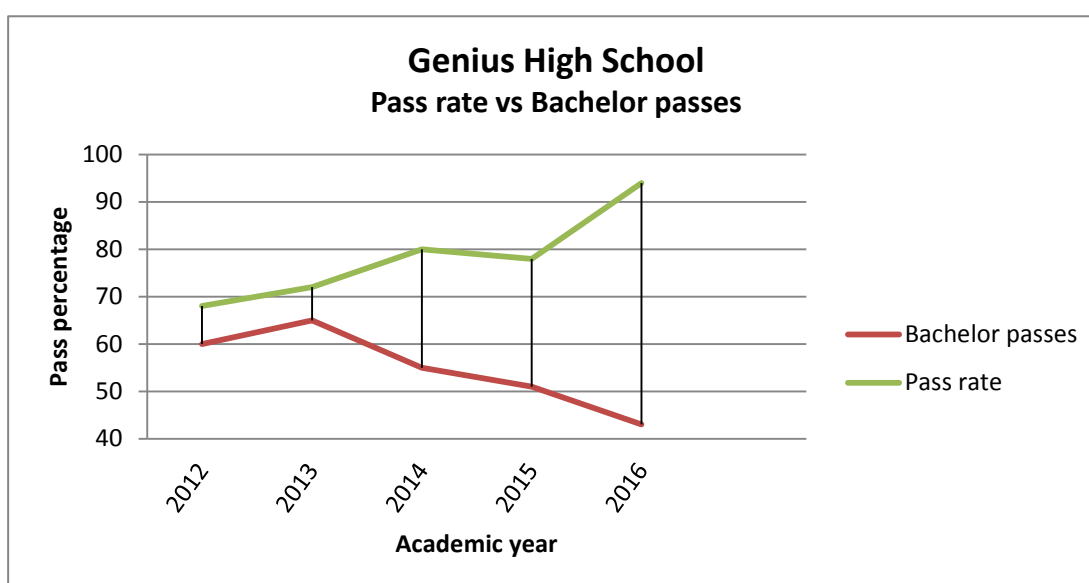
6.2 The following list was taken from a record sheet:

Name and Surname	Grade	Task 1
		40 marks
Lungisa Mbongwe	12	35
Songela Dumisa	12	12
Hendrik Williams	12	16
Zodwa Cele	12	42
John Mokoena	12	36
<b>Average</b>	<b>12</b>	<b>28.2</b>

Identify TWO errors in the record sheet above which affect the quality of the information. (2)

6.3 State TWO advantages of organising data in a database, rather than in a spreadsheet. (2)

6.4 Study the graph below and answer the questions that follow.



6.4.1 Which year had most bachelor passes? (1)

- 6.4.2 Identify TWO trends seen in this graph. (2)
- 6.4.3 What do the trends, represented by the graph, show about the quality of the school's results? (1)
- 6.4.4 Give ONE recommendation based on the information in the graph. (1)
- [10]**

**QUESTION 7: SOCIAL IMPLICATIONS**

- 7.1 Define *online identity theft*. (1)
- 7.2 Give TWO examples of a situation when the right to access information may be more important than the right to privacy. (2)
- 7.3 State TWO negative implications of 3D printers, which are becoming more common. (2)
- 7.4 Recommend TWO strategies to control social unrest with the use of ICTs. (2)
- 7.5 Recently a prominent smartphone manufacturer had to withdraw exploding devices from the global market.
- 7.5.1 State ONE advantage for society of the withdrawal of the faulty devices. (1)
- 7.5.2 What is a possible negative effect of this withdrawal on consumers? (1)
- 7.5.3 How is the incident likely to affect the manufacturer? (1)
- [10]**

**QUESTION 8: SOLUTION DEVELOPMENT**

- 8.1 Name TWO features common to spreadsheet AND database applications to ensure the accuracy of data. (2)
- 8.2 What is the effect of using the spreadsheet feature 'Format as Table' on a cell range? (2)
- 8.3 Give an example of a spreadsheet function that cuts off only the decimal portion of a number. (1)
- 8.4 State TWO common problems when importing data from a CSV file into a database. (2)
- 8.5 Which TWO automatic referencing features of a word processing application are only available if the 'Manage Sources' feature has been used? (2)
- 8.6 A heading that was later added to a document does not appear in the automatic table of contents.  
State TWO steps to take to ensure that this new heading will appear in the automatic table of contents. (2)
- 8.7 An image on a web page you created does not display fully in the browser.  
Suggest TWO ways to ensure that the image is fully visible. (2)
- 8.8 The following HTML code was taken from a working HTML document:  
`<table>  
<tr><td></td></tr>  
</table>`
- 8.8.1 How many cells should be displayed in the first row? (1)
- 8.8.2 Why will this code not display anything in the browser? (1)
- [15]**

**TOTAL SECTION B: 75**

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

Your community has established a community policing forum (CPF). The chairperson of the forum has asked you to help with improving their ICT system.

9.1 The CPF office has three computers for administrative work. These computers have the following specifications:

- Intel Dual Core 1.2 GHz
- 1 GB RAM
- 240 GB HDD
- DVD writer
- 15" LED screen 800 x 600
- Keyboard and mouse
- Windows 7

9.1.1 These computers are quite slow. Suggest TWO ways to improve their performance. (2)

9.1.2 The mouse on one of the computers is not working. Discuss how you would go about checking what the problem may be. (1)

9.1.3 Currently these computers cannot be networked wirelessly. Name TWO devices that can be added as components to the computers to make wireless communication possible. (2)

9.1.4 State TWO ways in which one can know that these computers are old. (2)

9.2 The CPF has decided to install a surveillance system using cameras around their office. All videos will be stored on hard drives (HDDs).

9.2.1 Explain why the CPF should purchase high-capacity hard drives. (1)

9.2.2 Suggest ONE way to manage the situation when the HDDs are full, but recording must continue. (1)

9.2.3 State TWO disadvantages of using wireless cameras. (2)

9.3 The CPF has been using social media for communication with community members.

9.3.1 Give TWO reasons why it may not be a good idea to discuss victims of crime on social media. (2)

9.3.2 Explain why it would be good to use WhatsApp for alerting residents to possible threats. (2)

9.3.3 What type of software could be used to help blind residents to access the contents of text messages? (1)

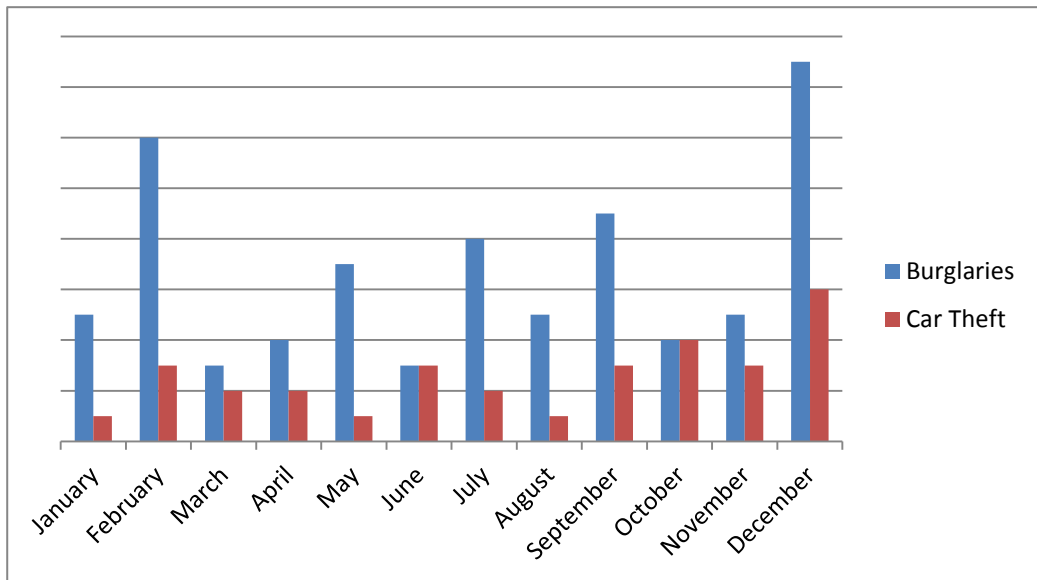
9.4 Give TWO reasons why it would be a good idea for the CPF to back up their data to a cloud service. (2)

9.5 Residents' personal details have been captured in a database. The chairperson would like you to analyse this data.

9.5.1 Name TWO database features that can be used to determine the number of females who are older than 60 years. (2)

9.5.2 What is the advantage of using an input form instead of a table in Datasheet View to capture data? (1)

9.6 Study the graph on crime statistics below and answer the questions that follow.



9.6.1 Suggest THREE ways to make the graph easier to understand. (3)

9.6.2 Why would a pie graph not be suitable to represent this information? (1)  
**[25]**

**QUESTION 10**

Your friends are planning a trip to the Cango Caves. They need your advice on how to make their experience more enjoyable with the help of ICTs.

- 10.1 Your friends want to rent a car in Oudtshoorn.
- 10.1.1 Name a type of software application necessary to book a car on a rental agency website. (1)
  - 10.1.2 How would you book a car on a mobile device without using the rental agency website? (1)
  - 10.1.3 State TWO ways to pinpoint the different places you visit on your mobile device in order to view them later on a map. (2)
  - 10.1.4 How could ICTs help you communicate with your taxi driver if he does not speak your language? (1)
- 10.2 Your friends might want to visit a local coffee shop on their way to the caves. You found directions to a coffee shop online.
- 10.2.1 State TWO disadvantages of following online recommendations as a way to find a good coffee shop. (2)
  - 10.2.2 Give TWO technical reasons why a mobile phone payment may be unsuccessful. (2)
  - 10.2.3 Discuss TWO ways to protect yourself from falling victim to bank card fraud at the coffee shop. (2)
- 10.3 Your friends will be using their smartphones in the caves.
- 10.3.1 Give TWO reasons why the picture quality of a smartphone camera is poorer than that of a professional camera (DSLR). (2)
  - 10.3.2 Why can't your friends use a map app for automatic turn-by-turn directions in the caves? (1)
  - 10.3.3 Name TWO techniques to remove unwanted parts from a photograph after it was taken. (2)

- 10.4 Your friends want to keep in regular contact with their families.
- 10.4.1 State TWO advantages of using Wi-Fi hotspots for making VoIP calls. (2)
- 10.4.2 Discuss TWO security issues associated with using Wi-Fi hotspots. (2)
- 10.4.3 Give TWO reasons why your friends should NOT consider using satellite broadband while they are travelling. (2)
- 10.4.4 What can be the reason for poor video quality of a Skype call if there are no issues with either bandwidth or connectivity? (1)
- 10.4.5 How could you access all the pictures of the trip on your friend's cloud account? (2)
- [25]**
- TOTAL SECTION C: 50**  
**GRAND TOTAL: 150**



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## **SENIOR CERTIFICATE EXAMINATIONS**

**COMPUTER APPLICATIONS TECHNOLOGY P2**

**2017**

**MARKING GUIDELINES**

**MARKS: 150**

**TIME: 3 hours**

**These marking guidelines consist of 15 pages.**

**SUGGESTIONS AND RECOMMENDATIONS TO MARKERS**

- Revisit the questions and the memorandum/marketing guideline 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	B	✓	1
1.2	A	✓	1
1.3	D	✓	1
1.4	C	✓	1
1.5	B/A	✓	1
1.6	D	✓	1
1.7	A	✓	1
1.8	C	✓	1
1.9	B	✓	1
1.10	C	✓	1
<b>Total: [10]</b>			

**QUESTION 2: MATCHING ITEMS**

2.1	M	✓	1
2.2	J	✓	1
2.3	B	✓	1
2.4	S	✓	1
2.5	C	✓	1
2.6	Q	✓	1
2.7	T	✓	1
2.8	P	✓	1
2.9	K	✓	1
2.10	O	✓	1
<b>Total: [10]</b>			

**QUESTION 3: TRUE OR FALSE**

(Note to marker: In QUESTIONS 3.1, 3.2, 3.3 and 3.4, accept the correct term even if FALSE is not stated. Do not award a mark if only 'FALSE' is written down.)

3.1	FALSE, Wikipedia	1
3.2	FALSE, patches/service packs	1
3.3	FALSE, VLOOKUP/HLOOKUP/LOOKUP	1
3.4	FALSE, netiquette	1
3.5	TRUE	1
		<b>[5]</b>

**TOTAL SECTION A: 25**

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

4.1	<ul style="list-style-type: none"> <li>• Ctrl-X deletes/cuts the selected text</li> <li>• Ctrl-C does not delete the selected text/Makes a copy of the selected text</li> </ul> <p style="text-align: right;">✓ (Any one)</p>		(1)
4.2	Stores deleted files/Restore deleted files✓		(1)
4.3	<ul style="list-style-type: none"> <li>• Better performance than a single system</li> <li>• Combines the processing power of many machines</li> <li>• Can increment processing power when needed</li> </ul> <p style="text-align: right;">✓ (Any one)</p>		(1)
4.4	<ul style="list-style-type: none"> <li>• Change the default application that opens the file type in question/Open With</li> <li>• Reinstall the browser</li> </ul> <p style="text-align: right;">✓ (Any one)</p>		(1)
4.5	<ul style="list-style-type: none"> <li>• Router</li> <li>• Modem</li> <li>• Wi-Fi card/NIC</li> <li>• 3G/4G dongle</li> <li>• Bluetooth dongle</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		(2)
4.6	<p>Add the folder to an archive✓</p> <p><i>(Note to marker: Accept valid examples of archive file extensions such as ZIP, RAR, etc.)</i></p>		(1)
4.7	<p>Example: Giwe2b\$</p> <p><i>(Note to marker: Use the points below to mark the password given by candidate)</i></p> <ul style="list-style-type: none"> <li>• Upper case</li> <li>• Lower case</li> <li>• Number</li> <li>• Special character</li> <li>• Length of at least 7 characters</li> </ul> <p style="text-align: right;">✓✓✓✓ (Any four)</p>		(4)

4.8.1	Graphics/Video card✓ <i>(Note to marker: Accept motherboard and any component that refers to display.)</i>	(1)	
4.8.2	HDMI✓ <i>(Note to marker: Accept USB.)</i>	(1)	
4.8.3	<ul style="list-style-type: none"> <li>• It is on its way out/Obsolete</li> <li>• Does not support audio</li> <li>• Does not support high resolution video</li> <li>• Does not support higher refresh rates</li> <li>• The analogue signal is more prone to interference</li> <li>• Pins on connector can bend easily</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>	(2)	(4)
4.9	Stylus/Graphics tablet/Digital tablet/Digital pens/Smart pens/Touch screen✓ <i>(Note to marker: Accept scanner or scanning device, e.g. Fax to Email)</i>		(1)
4.10	App store/Playstore✓ <i>(Note to marker: Accept any example of an app store )</i>		(1)
4.11	<ul style="list-style-type: none"> <li>• Security/Privacy issues</li> <li>• Battery consumption</li> <li>• Data usage</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p> <p><i>(Note to marker: Accept any one example for each of the above points)</i></p>		(2)
4.12	<ul style="list-style-type: none"> <li>• All-in-one PC</li> <li>• Integrated touchpad on the keyboard</li> <li>• Compact keyboard</li> <li>• Wireless peripherals</li> <li>• Touchscreen monitors</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		(2)
4.13	<ul style="list-style-type: none"> <li>• Date</li> <li>• Size</li> <li>• Type/extension</li> <li>• Location</li> <li>• Content</li> <li>• Author</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p> <p><i>(Note to marker: Accept any two examples of metadata)</i></p>		(2)



**QUESTION 5: INTERNET AND NETWORK TECHNOLOGIES**

5.1	Router (3G or LTE Dongle)/Modem✓		(1)
5.2	<ul style="list-style-type: none"> <li>Centralisation of data/Sharing of files</li> <li>Accessible from anywhere on the network</li> <li>Saving storage space on work stations</li> </ul>	✓✓ (Any two)	(2)
5.3	Wired/cabled✓ and Wi-Fi/wireless✓		(2)
5.4	Connecting the switches✓ (together will use one port each) Connect the computers to the remaining ports/Three ports available on each switch for six computers✓		(2)
5.5	The upload ✓ bandwidth is always lower✓ than download bandwidth in an ADSL line  <b>OR</b> Download and upload bandwidth/speed are not the same✓ (on an ADSL line) Upload bandwidth is lower than download/Download bandwidth is higher than upload✓		(2)
5.6	To indicate that it is an important e-mail/To get back to the flagged/starred e-mail later✓		(1)
5.7.1	<ul style="list-style-type: none"> <li>Navigation through webpages</li> <li>Downloading of resources</li> </ul>	✓(Any one)	(1)
5.7.2	<ul style="list-style-type: none"> <li>Error in code</li> <li>Resource on the remote computer is not available</li> <li>Incorrect resource is referenced/Incorrect spelling of resource name</li> </ul>	✓✓ (Any two)	(2) (3)
5.8	Two ✓		(1)
5.9	<ul style="list-style-type: none"> <li>Internet is a global computer network which makes WWW possible/accessible</li> <li>WWW is a collection of websites accessible on the Internet</li> </ul>	✓(Any one)	(1)
			<b>[15]</b>

**QUESTION 6: INFORMATION MANAGEMENT**

6.1	<ul style="list-style-type: none"> <li>To verify the source of the information</li> <li>To check the accuracy of the information</li> <li>To check if the information was updated</li> </ul> <p style="text-align: right;">✓ (Any one)</p>		(1)
6.2	<ul style="list-style-type: none"> <li>The average in the Grade column does not make sense</li> <li>More than maximum marks for Zodwa Cele</li> <li>Average for Task 1 is not reliable as a result of GIGO/incorrect input</li> <li>Name and surname in the same cell (Cannot be sorted according to just one)</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		(2)
6.3	<ul style="list-style-type: none"> <li>Database is faster than spreadsheet for larger data sets</li> <li>Able to run queries on multiple data types</li> <li>Reports allow for a more readable/user friendly presentation of information</li> <li>Database is more scalable/Has the ability to easily grow in size because of a well-defined structure, e.g. data types, etc.</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		(2)
6.4.1	2013✓		(1)
6.4.2	<ul style="list-style-type: none"> <li>Bachelor passes declining</li> <li>Pass rate increasing</li> <li>Gap between the two is increasing</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		(2)
6.4.3	The quality of results is not good✓ in spite of the rising pass rate		(1)
6.4.4	<p>Find a way to improve bachelor passes✓</p> <p><i>(Note to marker: Accept any particular suggestion of a strategy to improve bachelor passes, e.g. train teachers, extra classes, etc.)</i></p>		(1)
			<b>[10]</b>

**QUESTION 7: SOCIAL IMPLICATIONS**

7.1	Pretending to be someone else✓ when posting online		(1)
7.2	Accept any example where the right to information is more important that the right to privacy, such as: <ul style="list-style-type: none"> <li>• Child predators on the Internet cannot count on their privacy being protected</li> <li>• Terrorists who use ICTs to devise plans to harm people/property</li> <li>• Companies evading tax</li> <li>• Merchants on the dark web, etc.</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		(2)
7.3	<ul style="list-style-type: none"> <li>• Dangerous objects can easily be replicated</li> <li>• Copyright issues</li> <li>• Disruption of formal manufacturing sector/Loss of jobs</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		(2)
7.4	<ul style="list-style-type: none"> <li>• Mass surveillance</li> <li>• Transparency in sharing information by government departments</li> <li>• Block/Stop/Intercept fake news</li> <li>• Blocking of Internet access by authorities, etc.</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>		(2)
7.5.1	<ul style="list-style-type: none"> <li>• It has a benefit for the safety of consumers</li> <li>• Consumers will receive better quality products</li> <li>• Manufacturers take responsibility for poor quality of products</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	(1)	
7.5.2	<ul style="list-style-type: none"> <li>• Less competition/Less choice</li> <li>• Higher prices</li> <li>• Rollout of innovation/New features may be slower, etc.</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	(1)	
7.5.3	<ul style="list-style-type: none"> <li>• Improve future quality control</li> <li>• Improve technology to avoid future problems</li> <li>• May re-organise human resources</li> <li>• Tarnish brand reputation</li> <li>• Loss of income/Loss of customers</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	(1)	
			<b>[10]</b>

**QUESTION 8: SOLUTION DEVELOPMENT**

8.1	Data validation✓ Data format/Data type✓		(2)
8.2	<ul style="list-style-type: none"> <li>• The column headings and rows get a pretty format</li> <li>• Column headings are made if the range had no headers</li> <li>• A named range is created from the selected cell range</li> </ul>	✓✓ (Any two)	(2)
8.3	<ul style="list-style-type: none"> <li>• TRUNC</li> <li>• INT</li> <li>• ROUNDDOWN</li> </ul>	✓ (Any one)	(1)
8.4	Column headings are treated as a record.✓ Text fields such as ID and telephone numbers are automatically assigned a number data type.✓		(2)
8.5	Citations✓ Bibliography✓		(2)
8.6	<ul style="list-style-type: none"> <li>• Apply suitable style to the heading</li> <li>• Adjust Table of Contents (ToC) properties to include another style</li> <li>• Update the Table of Contents</li> </ul>	✓✓ (Any two)	(2)
8.7	<ul style="list-style-type: none"> <li>• Resize the browser</li> <li>• Change the display resolution</li> <li>• Change the dimensions of the original image</li> <li>• Set width and height attributes</li> </ul>	✓✓ (Any two)	(2)
8.8.1	One✓	(1)	
8.8.2	<ul style="list-style-type: none"> <li>• There is no text within the table data tag</li> <li>• Border attribute is not set</li> </ul>	✓ (Any one) (1)	
			<b>[15]</b>

**TOTAL SECTION B: 75**

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

9.1.1	<ul style="list-style-type: none"> <li>• Upgrade CPU</li> <li>• Add more RAM</li> <li>• Replace HDD with an SSD</li> <li>• Defragment the HDD</li> <li>• Overclocking</li> <li>• Install patches/service packs/Update operating system</li> <li>• Close unnecessary programs</li> <li>• Remove viruses, etc.</li> </ul>	✓✓ (Any two)	(2)	
9.1.2	<ul style="list-style-type: none"> <li>• Check if the cord is not torn/frayed</li> <li>• Check if the mouse is connected/plugged in/Bluetooth is on</li> <li>• Check if the battery is flat</li> <li>• Check if something is blocking the light sensor underneath the mouse</li> <li>• Use another mouse to test whether the mouse is faulty</li> <li>• (Restart) to check if the driver is working properly, etc.</li> </ul>	✓ (Any one)	(1)	
9.1.3	<ul style="list-style-type: none"> <li>• Wi-Fi NIC/Wi-Fi card/Wi-Fi dongle</li> <li>• Bluetooth dongle</li> <li>• 3G dongle, etc.</li> </ul>	✓✓ (Any two)	(2)	
9.1.4	<ul style="list-style-type: none"> <li>• Low (clock) speed of the CPU/Intel dual core is old technology</li> <li>• Low amount of RAM</li> <li>• Small HDD</li> <li>• Low resolution monitor</li> <li>• Older operating system</li> </ul> <p><i>(Note to marker: Do not accept just the name of the specification without saying what is wrong with it, e.g. CPU, RAM, etc.)</i></p>	✓✓ (Any two)	(2)	(7)
9.2.1	Video footage takes huge amounts of storage space✓		(1)	
9.2.2	<ul style="list-style-type: none"> <li>• Delete old videos to make space for the new ones</li> <li>• Adjust/check the settings which enable to auto-delete the oldest recordings</li> <li>• Move data to external storage/cloud storage</li> </ul>	✓ (Any one)	(1)	

9.2.3	<ul style="list-style-type: none"> <li>• Range might be limited</li> <li>• Network configuration issues</li> <li>• Possibility of crosstalk on the same radio frequency</li> <li>• May be easier to hack into</li> <li>• Requires batteries/alternate power source</li> <li>• Easy to steal</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>	(2)	(4)
9.3.1	<ul style="list-style-type: none"> <li>• Privacy of victims needs to be respected</li> <li>• Social media leaks/discussions may compromise the ongoing legal processes</li> <li>• Victims of crime can be subjected to unfair further victimisation by a judgemental crowd</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>	(2)	
9.3.2	<ul style="list-style-type: none"> <li>• The instant nature of communication/quick messages/IM</li> <li>• Closed groups are convenient and have enhanced security/privacy</li> <li>• WhatsApp is a very popular/ubiquitous app installed on almost anybody's device</li> <li>• Can handle a range of multimedia well, e.g. for taking videos of crimes</li> <li>• Can track whether messages were read</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>	(2)	
9.3.3	Text-to-speech/screen readers✓	(1)	(5)
9.4	<ul style="list-style-type: none"> <li>• Backup kept in a different location/Remote backup</li> <li>• Accessible from anywhere/anytime where there is internet access</li> <li>• No extra hardware required/Cheaper than buying extra storage</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p> <p><i>(Note to marker: Do not accept automatic backup/syncing)</i></p>		(2)
9.5.1	<ul style="list-style-type: none"> <li>• Queries</li> <li>• Filters</li> <li>• Reports</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>	(2)	
9.5.2	<ul style="list-style-type: none"> <li>• Better layout/view of the record</li> <li>• Viewing one record at a time</li> <li>• User friendly interface for input</li> <li>• Limits the number of fields displayed</li> </ul> <p style="text-align: right;">✓ (Any one)</p>	(1)	(3)

9.6.1	<ul style="list-style-type: none"><li>• Add a title</li><li>• Add vertical axis labels</li><li>• Add data labels / show numbers on bars</li><li>• Add minor gridlines</li><li>• Add data table</li><li>• Add axis titles</li><li>• Show clear difference in colour/texture of bars</li></ul> <p style="text-align: right;">✓✓✓ (Any three)</p>	(3)	
9.6.2	A pie graph will not be able to correctly display BOTH data ranges✓	(1)	(4)
			<b>[25]</b>

**QUESTION 10: INTEGRATED SCENARIO**

10.1.1	A web browser✓  <i>(Note to marker: Accept any suitable name of a web browser)</i>	(1)	
10.1.2	Use an app✓  <i>(Note to marker: Accept any suitable name of an app or contact them)</i>	(1)	
10.1.3	<ul style="list-style-type: none"> <li>• Record GPS coordinates</li> <li>• Drop a pin on the location in the map app</li> <li>• Take pictures with geo-tagging/Take a photo and do a photo search</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>	(2)	
10.1.4	Use online translators/Google translate/Show taxi driver destination on a mapping app, etc.✓	(1)	(5)
10.2.1	Too few reviews to make a generalisation✓ Reviews made by business owner/Reviews may be biased/innacurate✓	(2)	
10.2.2	<ul style="list-style-type: none"> <li>• Your bank is offline/Bank experiencing technical problems</li> <li>• Mobile data/NFC/Wi-Fi is off</li> <li>• Entered incorrect OTP/one time PIN</li> <li>• There is no internet access/Data allocation is depleted</li> <li>• Hardware failure on the phone</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p> <p><i>(Note to marker: Do not accept “Technical problems” alone without referring to the bank)</i></p>	(2)	
10.2.3	<ul style="list-style-type: none"> <li>• Ensure nobody is watching you as you type in your PIN</li> <li>• Ensure no extra fittings on the card swiping device/Be wary of card cloning devices</li> <li>• Ensure card is used in front of you/Use tap to pay</li> <li>• Use payment service apps/devices, e.g. Zapper</li> <li>• Do not accept assistance from anybody/Do not get distracted while busy entering your PIN</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p>	(2)	(6)
10.3.1	<ul style="list-style-type: none"> <li>• Has a smaller sensor</li> <li>• Smaller lens</li> <li>• Flash is not as effective</li> <li>• Limited optical zoom</li> <li>• Fewer manual control options</li> </ul> <p style="text-align: right;">✓✓ (Any two)</p> <p><i>(Note to marker: Do not accept poor/lower quality pictures or reference to resolution)</i></p>	(2)	

10.3.2	<ul style="list-style-type: none"> <li>No GPS/Internet connectivity</li> <li>Caves were not mapped</li> </ul>	✓ (Any one)	(1)	
10.3.3	Use the snipping tool/Crop the picture✓ Erase a part in a picture editing program/app, e.g. Paint✓ (Note to marker: Accept overlapping/grouping pictures, etc. Do not accept to just edit or photoshop)		(2)	(5)
10.4.1	<ul style="list-style-type: none"> <li>Save on data costs</li> <li>May provide a better/more stable connection</li> <li>Less lag during call/Lower latency</li> </ul>	✓✓ (Any two)	(2)	
10.4.2	Your computer/device can be hacked on a public network✓ A 'rogue' Wi-Fi hotspot may be set up to steal your private information✓		(2)	
10.4.3	<ul style="list-style-type: none"> <li>Satellite broadband is normally a fixed connection/Not a mobile connection</li> <li>Too expensive compared to other connectivity options</li> <li>Line of sight is a limitation/Weather conditions may affect signal quality</li> </ul>	✓✓ (Any two)	(2)	
10.4.4	<ul style="list-style-type: none"> <li>Low resolution webcam/camera</li> <li>Low resolution monitor</li> </ul>	✓ (Any one)	(1)	
10.4.5	Share folder with the photographs to family members✓ Give them your password for the cloud account✓		(2)	(9)
				<b>[25]</b>

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