



eduresourceza.com

INSERT SCHOOL LOGO HERE

GRADE 10 EXAMINATION
JUNE 2023**COMPUTER APPLICATIONS TECHNOLOGY: PAPER II (THEORY)****NAME**

Time: 2 hours

Marks: 90

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. This question paper consists of 14 pages. Please check that your question paper is complete.
2. The paper is divided into Section A (15 Marks), Section B (45 Marks) and Section C (30 Marks).
3. Answer ALL the questions. Remember to write your name in the space provided.
4. Non-programmable calculators may be used.
5. It is in your interest to write legibly and present your work neatly. Check your language and spelling.
6. Read the questions carefully. Take note of the wording of the questions, i.e., explain, name, select, discuss, identify, etc. and then answer accordingly.
7. Give your answers in general terms. Use brand names only when asked, e.g., use "word processing" rather than "Microsoft Word".
8. In general, a mark is allocated per fact. Therefore, a two-mark question would require two facts, and so on.
9. One blank page (page 14) is included at the end of this paper. Use this page if you run out of space when answering a question. Clearly indicate the question number of your answer should you use this extra space.

SECTION	A		B			C		TOTAL
	15		45			30		
QUESTION	1	2	3	4	5	6	7	
MARKS	5	10	20	15	10	15	15	90
OBTAINED								

SECTION A**QUESTION 1**

Select the **MOST** appropriate answer to each question. Write down **ONLY** the letter of your choice in the space provided.

1.1 Which **ONE** of the following is an example of good Netiquette?

- A Writing in all capital letters.
- B Sending or responding to spam.
- C The use of abbreviations and emoticons in formal email communication.
- D Browsing and shopping on secure and well-known sites.

1.1	
-----	--

(1)

1.2 The following are **TRUE** about using tables in word processing **EXCEPT** ...

- A Tables are a convenient way to display data in a grid-like structure within a document.
- B Tables can be used to perform advanced formulas like those used in Excel.
- C Tables can be customised by changing borders, shading, and cell size.
- D Tables can be imported from and exported to other programs such as Excel.

1.2	
-----	--

(1)

1.3 Which **ONE** of the following is a commonly used protocol for sending and receiving emails over the Internet?

- A HTTP
- B FTP
- C SMTP
- D VoIP

1.3	
-----	--

(1)

1.4 Which **ONE** of the following file extensions is associated with digital graphics or images?

- A mp4
- B jpg
- C docx
- D exe

1.4	
-----	--

(1)

1.5 Which **ONE** of the following functions can be used to find the number of cells in a range that contains numerical values?

- A COUNT
- B MODE
- C AVERAGE
- D MAX

1.5	
-----	--

(1)

[5]

QUESTION 2

Choose the definition in Column C that **BEST** matches the term in Column A. Write down **ONLY** the letter of your choice in Column B next to the appropriate term, for example, 2.11 P.

COLUMN A		COLUMN B	COLUMN C	
2.1	Style		A	A type of utility software that allows users to copy important files and programs onto an alternative storage device.
2.2	Hyperlink		B	A website that is developed collaboratively by a community of users, allowing the users to add and edit content.
2.3	Backup		C	A group of 8 bits, used to store and transmit digital data; can represent a single character or symbol.
2.4	Ribbon		D	A type of malicious software that is disguised as a useful program or file but contains harmful code that can damage your computer or steal your data.
2.5	Ransomware		E	The practice of shifting the position of text inward from the left or right margin of a document, usually to set off text from the document's main body.
2.6	Byte		F	A word, button or image that points to another location in a document or another webpage.
2.7	Blog		G	A collection of tools and options that you can use to format your text, add images, or other features in a Word document.
2.8	Trojan		H	The smallest unit of digital information, which only has two values, 0 or 1, and is used to store and transmit digital data.
2.9	BIOS		I	A type of utility software that allows users to free up disk space on their computer by removing temporary files, system files, and other unnecessary files.
2.10	Watermark		J	A web address that tells your computer where to find a webpage or other online resource.
			K	A type of integrated circuit that is responsible for initialising hardware components and performing system checks when a computer is switched on.
			L	A type of malicious software that can infect your computer and prevent you from accessing your own files or data unless money is paid, usually in the form of cryptocurrency.
			M	An online journal which allows others to post and comment on your content.
			N	An image or text, usually lighter in shade that appears behind the main text of a word processing document, so the document can still be easily read.
			O	A predefined combination of font type and size, colour and spacing that can be applied to text.

[10]

[SECTION A: 15 MARKS]

SECTION B

QUESTION 3: SYSTEM TECHNOLOGIES

3.1 Identify each image below **AND** state their **MAIN** function. Write down your answers in the table below.

3.1.1		3.1.2	
	[Source: https://cdn.britannica.com]		[Source: https://www.servethehome.com]
3.1.3		3.1.4	
	[Source: https://www.digi-id.co.za]		[Source: https://www.founderjar.com]

Question	Image	Main Function	
3.1.1			(2)
3.1.2			(2)
3.1.3			(2)
3.1.4			(2)

3.2 Distinguish between hardware and software by providing **TWO** differences between them.

Hardware	Software

(4)

3.3 When purchasing a monitor, there are certain specifications to keep in mind to ensure that you make the right choice.

3.3.1 A monitor is made up of a number of pixels. How does the number of pixels affect the resolution of the monitor?

(1)

3.3.2 Two specifications that are important when choosing a monitor are **size** and **type** of monitor. Explain the meaning of the **TWO** specifications.

Size:

(1)

Type:

(1)

- 3.3.3 Most new monitors connect to your computer using an HDMI cable. Give **ONE** advantage of using an **HDMI** cable over an outdated **VGA** cable.

(2)

- 3.4 In each of the following cases, choose the most suitable **type** of application software. *Do not give the brand names.*

- 3.4.1 Accessing and navigating the World Wide Web and displaying web pages.

(1)

- 3.4.2 Creating and editing digital images, photographs, and other visual media.

(1)

- 3.4.3 Create and manage documents, spreadsheets, presentations, and other types of digital content.

(1)

[20]

QUESTION 4: INTERNET AND NETWORK TECHNOLOGIES

- 4.1 To connect your home or business to the Internet, you require the services of an ISP (Internet Service Provider).

- 4.1.1 Name **ONE** South African ISP.

(1)

- 4.1.2 An ISP charges a basic connection fee every month. The amount charged depends on two factors, the **bandwidth** and the **speed**. Explain what is meant by these terms.

Bandwidth: _____

Speed: _____

(2)

- 4.1.3 Name **TWO** hardware devices that you would need to connect to the Internet.

Device 1: _____

Device 2: _____

(2)

4.2 E-communication has improved significantly since the arrival of the Internet.

4.2.1 Give **TWO** improvements in the use of e-communication.

Improvement 1: _____

Improvement 2: _____

(2)

4.2.2 A variety of e-communication tools are available to users. These include chat groups and instant messaging. Give **TWO** differences between **chat groups** and **instant messaging**.

Difference 1: _____

Difference 2: _____

(4)

4.2.3 Email is an example of an e-communication tool. Name **ONE** popular web-based email program.

(1)

4.3 Online banking has made a significant difference in the way that people manage their finances; however, security has become a problem.

Name **THREE** methods that users can ensure the security of their online banking system.

Method 1: _____

Method 2: _____

Method 3: _____

(3)

[15]

QUESTION 5: SOLUTION DEVELOPMENT

5.1 Study the spreadsheet below and answer the questions that follow.

	A	B	C	D	E	F
1	Midlands Food Supplies					
2						
3	Address:	15 Long Street			Invoice No:	15872
4		Pietermaritzburg				
5		3201			Date:	#####
6						
7	Email:	info@midlandsfs.co.za				
8						
9	Item	Units	Unit Price	Quantity	Discount	Total Cost
10	Chicken fillets	kg	R84,99	5	R21,25	R403,70
11	Mince	kg	R95,99	8	R38,40	R729,52
12	Potatoes	kg	R9,99	7	R3,50	R66,43
13	Rice	kg	R17,50	6	R5,25	R99,75
14	Carrots	kg	R17,99	12	R10,79	R205,09
15	Free range eggs	30 pack	R76,99	4	R15,40	R292,56
16	Fresh Hake	kg	R169,90	3	R25,49	R484,22
17						
18	TOTAL DUE					R2 281,27

5.1.1 What formatting technique was used to ensure the heading appears across cells **A1** to **F1**?

_____ (1)

5.1.2 Why is "#####" displayed in cell **F5**?

_____ (1)

5.1.3 What formatting feature was used to display the amounts in columns C, E, and F?

_____ (1)

5.1.4 Write down the formula that was used to calculate the total cost in cell **F10**.

_____ (3)

5.1.5 What function was used in cell **F18** to calculate the total amount due?

_____ (1)

5.2 Compressed folders, also known as zipped files, have become a popular way to store and transfer large amounts of data over the Internet.

5.2.1 What happens to the file size of the compressed folder compared to the original files?

_____ (1)

5.2.2 Why is it useful to compress files in a folder before sending them via email? Give **TWO** reasons.

Reason 1: _____

(1)

Reason 2: _____

(1)

[10]

[SECTION B: 45 MARKS]

SECTION C

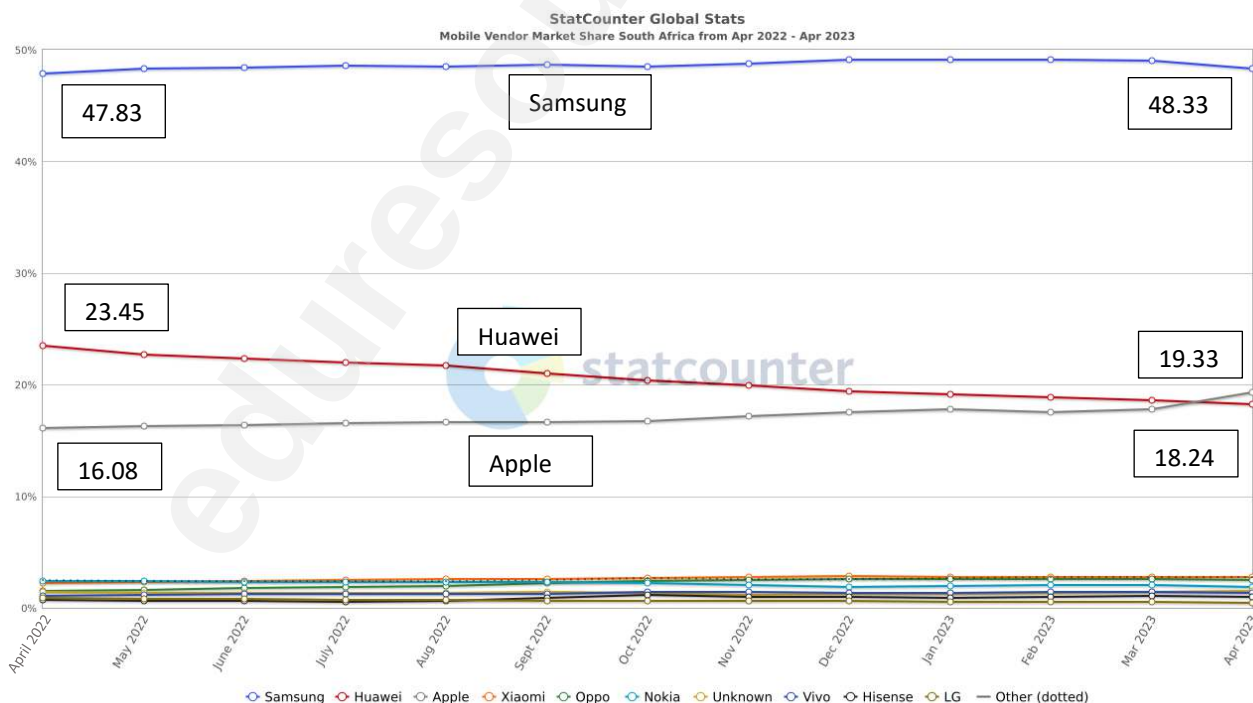
Consider the following scenario when answering the **rest of the examination paper unless the questions are of a general nature or otherwise stated.**

According to Luke Fraser's article in **BusinessTech**, "The most popular smartphone brands in South Africa", published on 16 April 2023, Samsung is the most popular smartphone brand in South Africa, with nearly 50% of the market share.

[Source: <https://businesstech.co.za/news/trending/676573/the-most-popular-smartphone-brands-in-south-africa/> (8 May 2023)]

QUESTION 6: INTEGRATED SCENARIO

6.1 Study the graph below, which shows the mobile vendor market share (sales of smartphones per company) in South Africa from April 2022 to April 2023. Answer the questions that follow.



[Source: <https://gs.statcounter.com/vendor-market-share/mobile/south-africa>]

6.1.1 Why is a chart easier to understand than text?

(1)

6.1.2 What type of chart has been used above to show the mobile vendor market share for South Africa? Provide a reason why this type of chart has been used.

Type of chart: _____

Reason: _____

(2)

6.1.3 Study the data for the mobile vendor (company) with the second-highest market share in April 2023.

(a) According to the graph, which company has the second-highest market share in April 2023?

(1)

(b) According to the graph, how does the market share in April 2023 compare to the market share in April 2022?

(1)

6.2 According to Justin Hume, vice-president of mobile experience at Samsung, South Africa, Samsung expects to see growth in 2023 with the launch of the Galaxy S23 series. The specifications of the Samsung Galaxy S23 include the following:

Memory: 8GB RAM

Internal Storage: 128 GB / 256 GB / 512GB

USB: USB Type-C 3.2

Display: 6.1" AMOLED Touch screen

CPU: Octa-core (1x3.36 GHz Cortex-X3 & 2x2.8 GHz Cortex-A715 & 2x2.8 GHz Cortex-A710 & 3x2.0 GHz Cortex-A510)

6.2.1 Expand the following acronyms:

(a) RAM _____ (1)

(b) USB _____ (1)

6.2.2 Compare the function of **RAM** to the **Internal Storage** of the smartphone:

RAM	Internal Storage
_____	_____
_____	_____
_____	_____

(2)

6.2.3 Touch screens have become an essential component of the design and functionality of smartphones. How does a **touch screen** work?

(2)

6.2.4 The CPU is a chip that fits on the motherboard.

(a) What is the function of the **CPU**?

(1)

(b) What unit is used to measure the speed of a smartphone's CPU?

(1)

(c) The smartphone has an **Octa-core** CPU. What does **Octa-core** mean, **AND** what is the benefit of this?

(2)

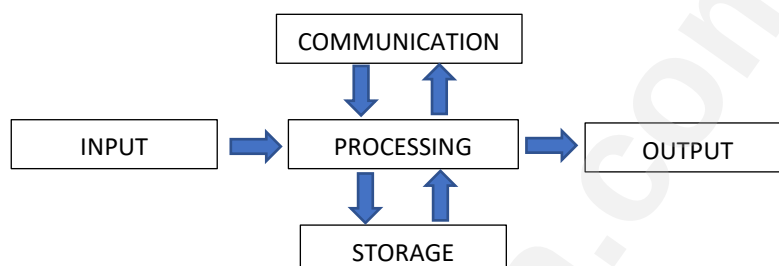
[15]

QUESTION 7: INTEGRATED SCENARIO continued

7.1 A smartphone is a converging device. Explain the concept of **convergence**.

(1)

7.2 All computers, including smartphones, operate on the same five basic principles of the information processing cycle. Each component of the computer performs one of these functions, and they all work together to make the computer work.



Explain which components of a smartphone perform specific functions for each stage of the Information Processing Cycle.

Input: _____

Processing: _____

Output: _____

Storage: _____

Communication: _____

(5)

7.3 What are the **THREE** common methods to keep your personal information secure on a smartphone?

Method 1: _____

Method 2: _____

Method 3: _____

(3)

7.4 The Samsung Galaxy S23 runs the Android 13 version operating system.

7.4.1 What is the function of an operating system?

(2)

7.4.2 The Android operating system is open source. Name **TWO** benefits of **open-source software**.

Benefit 1:

Benefit 2:

(2)

7.4.3 What category of software does Android belong to? Place a tick in the box of your choice.

(1)

Application Software

☐

System Software

☐

7.4.4 Android operating system makes use of a Graphical User Interface (GUI). Explain the concept of **GUI**.

(1)

[15]

[SECTION C: 30 MARKS]

[GRAND TOTAL: 90 MARKS]

ADDITIONAL SPACE (All questions)

REMEMBER TO CLEARLY INDICATE AT THE QUESTION THAT YOU USED THE ADDITIONAL SPACE TO ENSURE THAT ALL ANSWERS ARE MARKED. LABEL YOUR ANSWERS CLEARLY WITH THE QUESTION NUMBER.

eduresourceza.com