**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

SEPTEMBER 2023

COMPUTER APPLICATIONS TECHNOLOGY P1 (DEAF)

MARKS: 150

TIME: 3 hours

This question paper has 17 pages, an HTML tag sheet, an input mask character sheet and an information sheet.

INSTRUCTIONS AND INFORMATION

1.   This is a **practical examination**.
       If you **complete** the examination **early**, you **may not leave** the examination room.
       Wait in the examination room until all **administrative tasks** are **completed**.
       All examination rules must be **followed** in the examination room.

2.   Learners who **work** on the **network**:
       - the **data files** have been **loaded** on the **system**.
       - **follow** the teacher's **instructions** at all times.

3.   Make **sure** that **all your files** are **saved** on the network/computer.

4.   Make very sure that **all files can be read**.
       Do **NOT save unnecessary files/folders**.
       Do NOT hand in duplicate answer files/folders.
       Do NOT delete any original files that you did not work on.

5.   The information sheet **MUST BE COMPLETED AFTER THE EXAMINATION SESSION**.
       Give it **to** the **invigilator** at the end of the examination.

6.   A **copy** of the **master files** will be **available from** the **invigilator**.
       Should there be **any problems** with a file, you may **ask another copy** from the invigilator.

7.   This question paper has **SIX questions**.
       Answer ALL the questions.

8.   **Read** each **question before answering** or solving the problem.
       Do **NOT do more** than what is asked by the question.

9.   Make sure that you **save each document**.
       Use the **file name given** in the **question paper**.
       Save your work **regularly**.
       This will keep your work protected against power failures.

10.   You may **NOT use** any **material**.

11.   **Accurate**(perfect/correct) **answers** are **important**.

12.   The **regional settings** must be set to **South Africa**.

       Make sure that these **settings** are correct:
       - **date and time** settings
       - number settings
       - **currency** settings
       - use **English (South African)** for **word processing** documents
       - the **paper size** must be **A4 Portrait**

       The question will tell you if you must use another paper size.
       - use **centimetres** as the unit of measurement

13.   In **word processing** questions, **set** the **language** to **English (South Africa)**.
        The paper size is A4 Portrait, unless stated otherwise.
        Use centimetres as the **unit** of **measurement**.

14.   See that the **Developer tab** and **Ruler** are **activated**.

15.   Make sure that the **decimal symbol** is set as a **full stop** ('.').
        The **list separator** must be set as a **comma** (',')

16.   **Use formulae and/or functions** for ALL **calculations** in questions about
        spreadsheets.
        Use absolute **cell references only** where necessary to **make sure** that
        formulae are **correct** when you copy them to other cells in a spreadsheet.

        NOTE: All formulae and/or functions should be inserted in such a manner that
                the correct answer will still be given even if changes are made to the
                existing data.

17.   You may **NOT use** a **word processing** program e.g. Word to answer the **HTML
        question**.

18.   The **examination data folder** contains the **files listed below**.
        See that **you have all the files before** you **begin** with this examination.

1_10 biggest dams in South Africa	Microsoft Word Document
2_Brochure	Microsoft Word Document
2_Logo	JPG File
3_Dams	Microsoft Excel 97-2003 Worksheet
3_Map of SA Dams	JPG File
4_SA Top 50 Dams	Microsoft Access Database
5_Dam Picture	JPG File
5_Dams	Microsoft Edge HTML Document
6_Certificate of Achievement Merge	Microsoft Word Document
6_Merge Spreadsheet	Microsoft Excel Worksheet

SCENARIO

A group of your **CAT Grade 12 learners** are involved in your **school magazine's project** on **major dams** in **South Africa**. They are **required(asked)** to **create** a **school newspaper**, **forms** and other **documents**.

They are **given computers** with all the **necessary(needed) software**.

QUESTION 1: WORD PROCESSING

A document was **prepared** about this **project**.

Open the **1_10 biggest dams in South Africa** word processing **document**.

1.1   **Format** the **title** of **document '10 biggest dams in South Africa'** as follows:

    1.1.1   The **title** must be **in** a **text box filled** with the **gradient shape fill linear** down   (3)

    1.1.2   The **text box size** must be **3 cm high** and **15 cm wide**   (1)

    1.1.3   The **text box** must also have a **3pt red border**   (2)

1.2   **Find** all the **occurrences(places)** of the **word 'Mzansi'** in the document and **replace** it with the **word 'South Africa"** in **small caps**.   (2)

1.3   **Find** the **picture** under the **heading '1. Gariep (5,340,000 megalitres)'.**

    •   **Add** an **automatic caption** with a **new label 'Picture'** and **display** the **caption below the image**.
    •   **Add** the **captions** to the other **two pictures** in the **document**.   (4)

1.4   **Modify(Change)** the **'Heading 1' style** to be **bold** with **font size 19**.   (2)

1.5   **Find** the **heading ('4 Sterkfontein 2,616,000 megalitres)'** and the **paragraph underneath it.**

    •   **Change** the **paragraph settings** to **display** the **heading** and **paragraph together** and **not split over two pages**.   (2)

1.6   **Find** the **website information** at the **end** of the **document**.

    •   **Create** a **website source** and **only add** the **name** of the **website** and the **URL**.   (3)

1.7   **Find** the **word 'shoreline'** under **the heading '5. Vaal (2,613,500 megalitres)'.**

    •   **Use** the **proofing tools** of the **word processor** to **insert(add)** a **synonym**.   (1)

1.8   **Modify(Change)** a **text watermark** in the **document** as follows:

- **Change** the **text watermark 'Top Dams in SA'** to any **WordArt** of **your choice**.
- **Change** the **shape** of the **watermark** to a **Button (Curve)** and the **font type** to **Arial Narrow**.   (3)

1.9   **Insert** any **Outline Circle page numbering style** in the **page footer** as follows:

- **Align** the odd **page numbers** to the **left** of the **footer**.
- **Align** the **even page numbers** to the **right** of the **footer**.   (4)

[27]

QUESTION 2: WORD PROCESSING

A **brochure(booklet)** was **created** in **Word** to **create awareness** about the **different dams in South Africa**.

Open the **2_Brochure word processing document**.

2.1   **Format** the **brochure** with a **'two colour gradient fill' effect**.
        The **two colours** must be **red** and **orange**.   (3)

2.2   **Replace** the **picture** in the **third column** with the **'2_Logo.jpg' image found**
        in your **examination folder**.
        Ensure that the **image fits** the **previous picture**.   (3)

2.3   **Insert** the **name 'SA Dams'** in the **company name control**.   (1)

2.4   **Insert** a **date field** to the **text 'insert date here'** in the **format MMMM yyyy**.   (2)

2.5   **Insert** a **relationship SmartArt graphic 'Basic Pie'** and **type** in the **three**
        names of the **dams** as **provided** on the **brochure**.

                                                                                            (3)
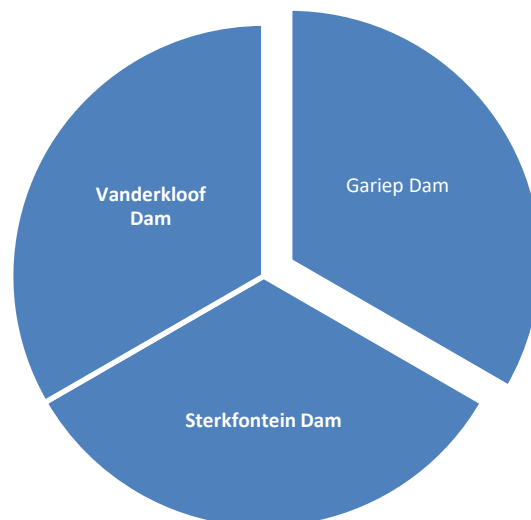
2.6   **Ensure** that the **font** of the **paragraph** under the **heading '3 Sterkfontein**
        Dam' is the **same** as the **font** of the **other paragraphs**.   (1)
                                                                                          [13]

QUESTION 3: SPREADSHEET

Statistical information about the **dams** in **South Africa** is **provided(given)** to **learners**.

Open the **3_Dams spreadsheet** and **work** in the **Summary** worksheet.

3.1   **Merge** and **centre** the cells **A1** to **N2** and **centre data vertically**.   (2)

3.2   **A value**, **attempting** to **display** the **current time**, appears in cell **A3**.
       Replace this **value** with a **function** that will **automatically display** the current time only.   (1)

3.3   **Each dam** has a **specific code**.

       Insert a **combination** of **functions** in cell **A5** to **create** a **code** as follows:

       • The **river name** of the **dam** (Column D).
       • **Followed** by the **first three letters** of the **dam** (Column B).
       • **Followed** by the **random three-digit number**.   (5)

3.4   **Insert** a **function** in cell **C56** to **determine** the **second oldest dam** in **South Africa**.   (3)

3.5   **Insert** a **function** in cell **F58** to **calculate** the **number** of **dams** in the **Eastern Cape**.   (3)

3.6   **Use** a **function** in cell **H60** to **calculate** the **number** of **dams** in **Free State** that are more than 500 m long.   (5)

3.7   **Insert** a **function** in cell **J62** to **calculate** the **total capacity** of all the **dams** in the **Eastern Cape**.   (4)

3.8   The **dams** are **categorised** according to their **capacity**. If a dam is:
       • **Greater** than **4 million 10^3 M^3**, then the **dam** is a **big dam**.
       • **Smaller** than **1 million 10^3 M^3**, then the **dam** is a **small dam**.
       • **Otherwise**, the **dam** is a **normal dam**.
       Insert a **function** in cell **J64** to **determine** which **type** of **dam** is the **Gariep Dam (J5).**   (5)

3.9   **Use** a **spreadsheet function** in **column H** and **apply** a **3-symbol uncircled indicator** on the **information** provided.

       The **indicators** must **show** the **following**:

       • The **value greater** than **80** and
       • the **value** less than **40**.   (5)

3.10   **Work on the Subtotal worksheet**
       Use the **SUBTOTAL feature** to **display** the **average capacity** of each **province**.   (3)

Work in the **Graph Data worksheet**.

3.11   **Create** the **graph** using the **data** in the **Graph Data sheet** as shown
         below.

- **Use** the **'Map of SA Dams' picture**.
- **Insert** a **title** and **name** for **both axes**.
- **Move** the **graph** to a **new sheet** called **My Graph**.
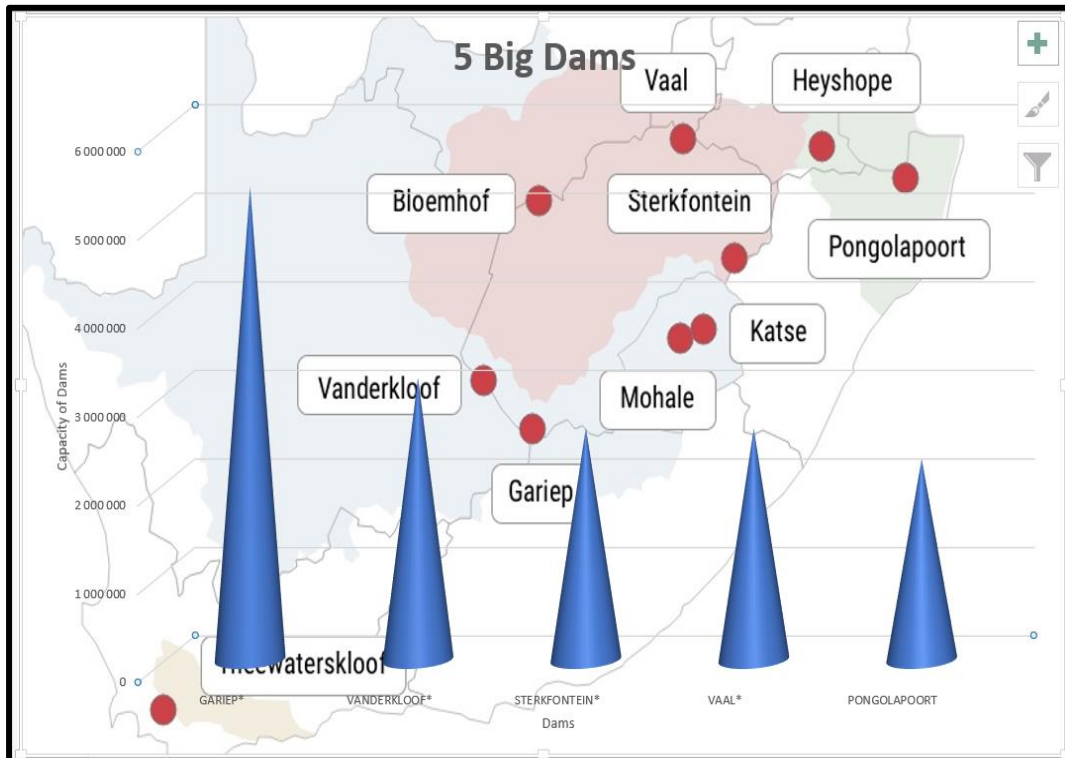
(8)
[44]

QUESTION 4: DATABASE

A **database** was **created** to **capture all** the **data** regarding the **Top 50 Dams** in **South Africa**.

Open the **4_SA Top 50 Dams database**.

4.1   **Format** the **Magazine Compilers table** as follows:

    4.1.1   **Set** the **Surname field** to **50**.   (1)

    4.1.2   **Ensure** that **only** the **vertical gridlines** are **visible**.   (1)

    4.1.3   **Set** the **field properties** of the **IDNO field** so that the **user** is **forced** to **enter data** in this **field**.   (1)

    4.1.4   **Format** the **e-mail field** to display **e-mail addresses** in **lowercase**.   (1)

    4.1.5   **Create** an **input mask** on the **Password field** to **ensure** that the **user inserts** a **password** to open the **computer**. The **password** is **set as follows**:

        • **Two compulsory letters**
        • **Followed** by a **hyphen** (-)
        • **Two compulsory numbers** and **one optional number**
        • **Followed** by a **hyphen** (-)
        • **Followed** by the **letters "WORD"**   (6)

4.2   **Open** the **form Frm_DamsSA** and **make** the **changes**:

    4.2.1   **Use** an **appropriate(suitable) setting** so that the **contents** of the **Capacity field automatically display** in a **red font colour** if the **value** is **less** than **three million 10³ M³**.   (3)

    4.2.2   **Insert** a **function** in the **footer** of the **form** to **display** the **current date**.   (2)

4.3   **Modify(change)** the query **Qry4_3** to **display** the following:

    • **Select** all **dams** that were **built** before **1970**.
    • Only **dams** in the **Eastern Cape**.
Note **no other field** must **display** other than those in the **query**.   (4)

4.4 Open **Qry4_4** and **modify(change)** the **query** to **display** the **following**:

Province	SumOfCapacity_10^3 m³
Eastern Cape	998946
Free State	11932893
Gauteng	2609799
KwaZulu-Natal	4397115
Limpopo	1769493
Mpumalanga	1903601
North West	1614079
Northern Cape	143081
Western Cape	1677738

(3)

4.5   **Create** a **report** called **rpt4_5** based on the **DamsSA** table to **display** the **records** as follows: (The **screenshot** below **displays** only the **top** and the **bottom part** of the **report**.)

rpt4_5			
Province	River	Dam	Capacity_10³ m³
Eastern Cape			
	Indwe	LUBISI	157 900
	Kougha	KOUGA*	128 490
	Mtata	MTATA	253 674
	Sundays	DARLINGTON*	187 691
	Tsomo	NCORA	150 092
	White Kei	XONXA	121 099
		998946	
Free State			
	Nuwe Jaar Spruit	STERKFONTEIN*	2 616 950
	Orange	VANDERKLOOF*	3 187 073
	Orange	GARIEP*	5 342 932
	Riet	KALKFONTEIN*	258 274
Northern Cape			
	Vanwyksvlei	VANWYKSVLEI	143 081
		143081	
Western Cape			
	(Off-stream)	GREATER BRANDVLEI	474 046
	Berg	BERGRIVIER DAM	130 000
	Berg	BERG RIVER*	126 400
	Olifants	CLANWILLIAM*	123 689
	Riviersonderend	THEEWATERSKLOOF	480 406
	Vogelvlei	VOëLVLEI	168 153
	Wabooms	KWAGGASKLOOF	175 044
		1677738	
		50	

*   **Sort according** to **River field**.
*   **Calculate** the **number** of **dams**.
*   **Calculate** the **total capacity** of the **dams** per **province**.
*   **Ignore** any **textbox borders**.   (9)
                                                                                   [31]

QUESTION 5: WEB DESIGN (HTML)

NOTE:

- **You may NOT use a word processing program such as Word to answer the HTML questions.**

- An **HTML tag sheet** has been **attached(attached)** for your **reference**.

A **web page** has been **created** to **show** some of the **biggest dams** in **South Africa**.

Open the incomplete **5_Dams web page** in a **web browser** and also in a **text editor**.

ONE mark will be **allocated(given)** for the **correct use** of **tags** and **triangular brackets**. Your **final web page** should **look** like the **example below**.

5.1   **Add** the **HTML code** so that the text **Big dams in South Africa appear** in the **browser tab**.   (1)

5.2   The **heading The Big Dams** must be **heading 1 style** and be **centred**.   (2)

5.3   **Change** the **background** of the **entire website** to **pink**.   (1)

5.4   **Insert tags** to **display** a **green horizontal line**.   (2)

5.5   **Insert** the **image 5_Dam Picture.jpg** as **shown** in the **question paper**.

             The **height** and **width** of the **picture** must be **200**.   (3)

5.6   **Modify(change)** the **list** under the **heading** 'List of the top 5 dams in South Africa' to **resemble(look like)** the **list** in the **question paper**.   (2)

5.7   **Correct** the **codes** on the **table** so that the table **resembles(look like)** the **one** on the **question paper**.

     Also **do** the following **changes** to the **table**:

- The **table border** must be **3**.
- Set **table width** to **100%** and
- **Cell spacing** to **5**.
- **Replace** the name **"Free State Dam"** with **"Gariep".**
- The **background colour** of the **heading row** of the **table** must be **green** and the **rest** of the **table** must be **yellow**   (6)

5.8   **Insert** a **hyperlink** on **'About the picture'** that will **link** to the **picture 5_Dam Picture.jpg** as **shown** in the **question paper**.   (4)

[21]

QUESTION 6: GENERAL

Use the following files for this question:

6_Certificate of Achievement Merge document and 6_Merge Spreadsheet.

6.1   The **school management decided** to **award all** the **learners** who **worked tirelessly** on the **magazine**.

       Open the **6_Certificate of Achievement Merge document**.

       6.1.1   **Replace** the **wave shape inserted**(put in) at the **bottom** of the **certificate** with the **basic sun shape**.
- **Insert** the **ALT Text Title** to **read 'Shape'**.
- **Insert** an **Alt Text Description** to read **'Basic Sun Shape'**.   (4)

       6.1.2   **Apply leader tabs** at the **bottom** of the **certificate** as shown below:

                                 (5)

       6.1.3   **Use** a **word processing feature** to **create letters** for **all** the **learners** who were **regulars** in the **meetings**.

- **Insert** the **Surname** and **Name fields only**.
- **Only** for those **learners** who were **regulars** in the **meetings**.
- **Use** the **'6_Merge Spreadsheet'** to **locate** the **names** of **learners** that **will receive certificates**.
- **Save** the **merged document** as **6_Merged.**   (5)

                                   [14]

                             TOTAL: 150

ANNEXURE A – HTML TAG SHEET

Basic Tags	
Tag	**Description**
`<body></body>`	Defines the body of the web page
`<body bg color="pink">`	Sets the background colour of the web page
`<body text="black">`	Sets the colour of the body text
`<head></head>`	Contains information about the document
`<html></html>`	Creates an HTML document – starts and ends a web page
`<title></title>`	Defines a title for the document
`<!-- -->`	Comment

Text Tags	
Tag	**Description**
`<h1></h1>`	Creates the largest heading
`<h6></h6>`	Creates the smallest heading
`<b></b>`	Creates bold text
`<i></i>`	Creates italic text
`<font size="3"></font>`	Sets size of font, from "1" to "7"
`<font color="green"></font>`	Sets font colour
`<font face="Times New Roman"></font>`	Sets font type

Link Tags	
Tag	**Description**
`<a href="URL"></a>`	Creates a hyperlink
`<a href="URL"><img src="URL"></a>`	Creates an image link
`<a name="NAME"></a>`	Creates a target location
`<a href="#NAME"></a>`	Links to a target location created somewhere else in the document

Formatting Tags	
Tag	**Description**
`<p></p>`	Creates a new paragraph
`<p align="left">`	Aligns a paragraph to the "left" (default), can also be "right", or "center"
` `	Inserts a line break
`<ol></ol>`	Creates a numbered list
`<ol type="A","a", "I","i","1"></ol>`	Defines the type of numbering used
`<ul></ul>`	Creates a bulleted list
`<ul type="disc", "square","circle"></ul>`	Defines the type of bullets used

Formatting Tags continued	
Tag	**Description**
`<li></li>`	Inserted before each list item, and adds a number or symbol depending upon the type of list selected
`<img src="name">`	Adds an image
`<img src="name" align="left">`	Aligns an image: can also be "right", "center"; "bottom", "top", "middle"
`<img src="name" border="1">`	Sets size of border around an image
`<img src="name" width="200" height="200">`	Sets the height and width of an image
`<img src="name" alt="alternative text">`	Displays alternative text when the mouse hovers over the image or when the image is not found
`<hr/>`	Inserts a horizontal line
`<hr size="3"/>`	Sets size (height) of line
`<hr width="80%"/>`	Sets width of line, in percentage or absolute value
`<hr color="ff0000"/>`	Sets the colour of the line

Table Tags	
Tag	**Description**
`<table></table>`	Creates a table
`<tr></tr>`	Creates a row in a table
`<td></td>`	Creates a cell in a table
`<th></th>`	Creates a table header (a cell with bold, centered text)
`<table width="50">`	Sets the width of the table
`<table border="1">`	Sets the width of the border around the table cells
`<table cellspacing="1">`	Sets the space between the table cells
`<table cellpadding="1">`	Sets the space between a cell border and its contents
`<tr align="left">`	Sets the alignment for cell(s) (can also be "center" or "right")
`<tr valign="top">`	Sets the vertical alignment for cell(s) (can also be "middle" or "bottom")
`<td colspan="2">`	Sets the number of columns a cell should span
`<td rowspan="4">`	Sets the number of rows a cell should span

INPUT MASK CHARACTER SHEET

CHARACTER	DESCRIPTION
0	Digit (0 to 9, entry required, plus [+] and minus [–] signs not allowed)
9	Digit or space (entry not required, plus [+] and minus [–] signs not allowed)
#	Digit or space (entry not required; spaces are displayed as blanks while in Edit mode, but blanks are removed when data is saved; plus [+] and minus [–] signs allowed)
L	Letter (A to Z, entry required)
?	Letter (A to Z, entry optional)
A	Letter or digit (entry required)
a	Letter or digit (entry optional)
&	Any character or a space (entry required)
C	Any character or a space (entry optional)
. , : ; - /	Decimal placeholder and thousand, date and time separators (The actual character used depends on the settings in the **Regional Settings Properties** dialog box in the Windows Control Panel.)
<	Causes all characters to be converted to lower case
>	Causes all characters to be converted to upper case to right. You can include the exclamation point anywhere in the input mask.
!	Causes the input mask to display from right to left, rather than from left to right. Characters typed into the mask always fill it from left to right. You can include the exclamation point anywhere in the input mask.
\	Causes the character that follows to be displayed as the literal character (for example, \A is displayed as just A)

COMPUTER APPLICATIONS TECHNOLOGY P1 – SEPTEMBER 2023

INFORMATION SHEET *(to be completed by the candidate AFTER the 3-hour session)*

SCHOOL: _____

NAME: _____

WORK STATION NUMBER: _____

SUITE USED (Mark appropriate box with a cross (**X**))	Microsoft Office 2010	Microsoft Office 2013	Microsoft Office 2016	Office 365
WEB BROWSER USED (QUESTION 6) (Mark appropriate box with a cross (**X**))	Mozilla Firefox	Google Chrome	Internet Explorer	Other (Specify)

FOLDER NAME: _____

Tick if saved and/or attempted.

Question Number	File name	Saved (√)	Attempted (√)	Maximum mark	Maximum achieved	Marker	HOD	Cluster	EM
1	1_10 biggest dams in South Africa			27					
2	2_Brochure			13					
3	3_Dams			44					
4	4_SA Top 50 Dams			31					
5	5_Dams			21					
6	6_Merge Spreadsheet 6_Certificate of Achievement Merge			14					
			TOTAL:	**150**					

Comment (for marker use only)

_____