Province of the
EASTERN CAPE
EDUCATION

NATIONAL
SENIOR CERTIFICATE

GRADE 12

SEPTEMBER 2023

COMPUTER APPLICATIONS TECHNOLOGY P1

MARKS: 150

TIME: 3 hours

Font size 18

This question paper consists of 23 pages, an HTML tag sheet, an input mask character sheet and an information sheet.

INSTRUCTIONS AND INFORMATION

1. Owing to the nature of this practical examination, it is important to note that, even if you complete the examination early, you will NOT be permitted to leave the examination room until all the administrative functions associated with the examination have been finalised. During the examination, the normal rules regarding leaving the examination room apply.

2. If you are working on the network, or the data files have been preloaded on your system, you must follow the instructions provided by the invigilator/ educator.

3. At the end of the examination, you must make sure that ALL your answer files are saved on the network/computer as explained to you by the invigilator/ educator.

4. Make absolutely sure that ALL files can be read. Do NOT save unnecessary files/folders and do NOT hand in duplicate answer files/folders. Do NOT delete any original files that you did not work on.

5. The information sheet that has been provided with the question paper MUST BE COMPLETED AFTER THE THREE-HOUR EXAMINATION SESSION. Hand 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 request another copy from the invigilator.

7.   This question paper consists of SIX questions. Answer ALL the questions.

8.   Read through each question before answering or solving the problem. Do NOT do more than is required by the question.

9.   Ensure that you save each document using the file name given in the question paper. Save your work at regular intervals as a precaution against possible power failures.

10.   You may NOT use any resource material.

11.   Accuracy will be taken into account, e.g. if a question requires the answer to be in cell F3 in a spreadsheet, and you enter the answer in cell G4, it will NOT be marked.

12.   Ensure that the regional settings are set to South Africa and date and time settings, number settings and currency settings are correctly set.

13.   In all questions involving word processing, you should set the language to English (South Africa). The paper size is assumed to be A4 Portrait, unless instructed otherwise. Use centimetres as the unit of measurement.

14. Ensure that the Developer tab and Ruler are activated.

15. Ensure that the decimal symbol is set as a full stop ('.') and the list separator is set as a comma (',').

16. Formulae and/or functions must be used for ALL calculations in questions involving spreadsheets. Use absolute cell references only where necessary to ensure 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 results will still be obtained even if changes are made to the existing data.

17. You may NOT use a word processing program such as Word to answer the HTML question.

18. The examination data folder that you receive with this question paper contains the files listed below. Ensure 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 to create a school newspaper, forms and other documents.

They are given computers with all the necessary software.

QUESTION 1: WORD PROCESSING

A document was created to provide background regarding 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 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 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 a synonym.   (1)

1.8 Modify 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 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.
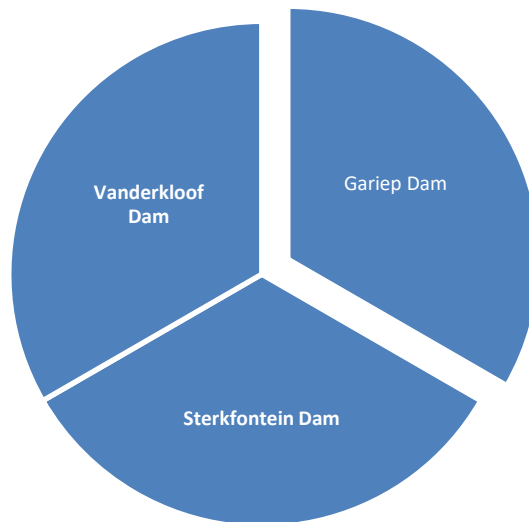
(3)

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 to learners.

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

3.1   Merge and center 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.
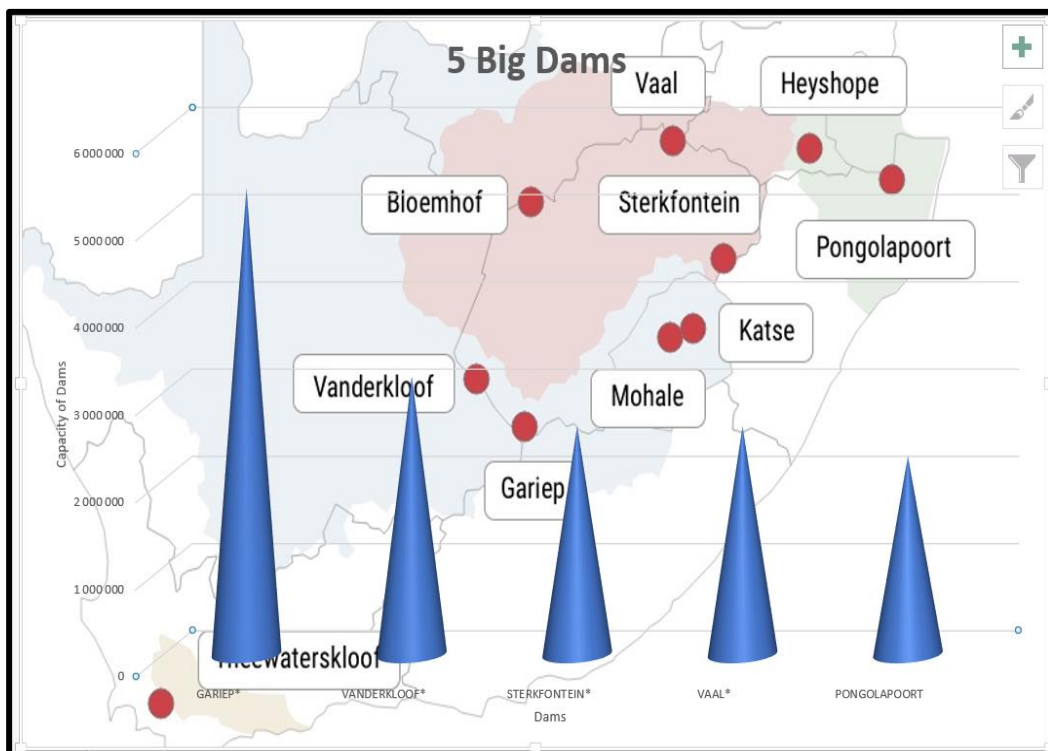
(8)

[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 email 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 following changes:

    4.2.1   Use an appropriate setting so that the contents of the **Capacity** field automatically display in a red font colour if the value is less than three million 10^3 M^3.   (3)

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

4.3   Modify 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 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 creenshot 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 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 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 the list under the heading 'List of the top 5 dams in South Africa' to resemble the list in the question paper.   (2)

5.7   Correct the codes on the table so that the table resembles 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 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**
`<hl></hl>`	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

Please turn over

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)

_____