**NATIONAL
SENIOR CERTIFICATE**

**GRADE 11**

**NOVEMBER 2017**

**COMPUTER APPLICATIONS TECHNOLOGY P1**

MARKS: 180

TIME: 3 hours

This question paper consists of 15 pages and an HTML tag sheet.

## INSTRUCTIONS AND INFORMATION

1.  Owing to the nature of this three-hour examination, it is important to note that you will NOT be permitted to leave the examination room before the end of the examination period.

2.  The invigilator will give you a disk containing all the files needed for the examination OR you will be told where the files can be found on the network or computer. If a disk has been issued to you, you must write your centre number and examination number on the label. If you are working on the network, you must follow the instructions provided by the invigilator.

3.  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.

4.  This question paper consists of SIX questions.

5.  Answer ALL the questions.

6.  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.

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

8.  At the end of the examination you must hand in the disk given to you by the invigilator with ALL the files saved on the disk, OR you should make sure that ALL the files are saved on the network/computer as explained to you by the invigilator/teacher. Make absolutely sure that all files can be read.

9.  During the examination you may make use of the help functions of the programs which you are using. You may NOT use any other resource material.

10. If data is derived from a previous question that you cannot answer, you should still proceed with the questions that follow.

11. Unless instructed otherwise, you must use formulae and/or functions 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.

12. 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.

13. In ANNEXURE A the HTML Tag sheet is provided.

                                                **Please turn over**

14. The examination folder/data disk that you receive with this question paper will contain the folder and files listed below. Ensure that you have the folder and all the files before you begin this examination.
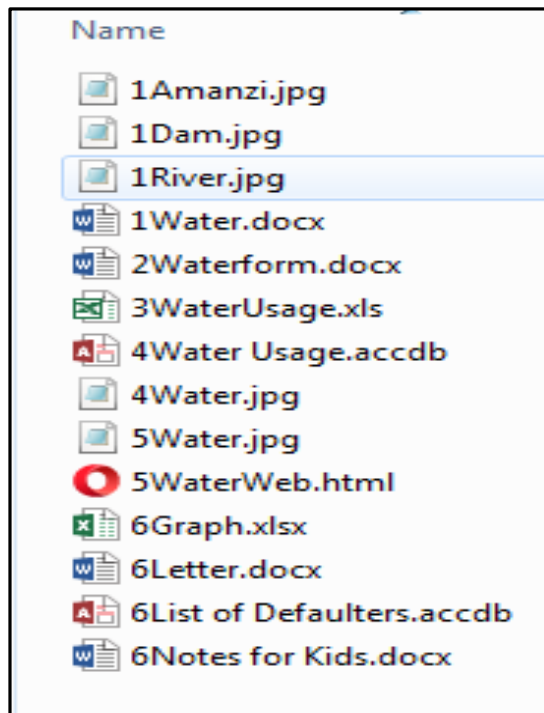
**SCENARIO**

**Theme: Water resources in South Africa, on an Eastern Cape perspective.**

Water resources in South Africa are depleted and more ways to save water are needed. The province of the Eastern Cape is one of the most affected in this regard. Low rainfall in parts of the country has resulted in severe drought and water scarcity with five out of our nine provinces declared disaster areas.

Communities all over the Eastern Cape have rallied around – as they always do in disaster situations – and set up stations to donate, collect and transport water to disaster areas. The water is distributed to many destinations, each one using the water sparingly to meet their individual needs.

## QUESTION 1: WORD PROCESSING

A document showing the research on the water crisis in the Eastern Cape.

Open the **1Water** word processing document and do the following:

1.1 Create a new paragraph style called Water based on the Heading 1 style. Edit the new style as follows:

- Set the font to Comic Sans 18 pt and italics.
- Apply the new style to the first heading ('History') at the top of page 1.
- Give the text a light blue background colour. (4)

1.2 Place a 2¼ pt wide, double-line page border around the first page of the document. (3)

1.3 Apply a blue gradient text fill effect to the heading 'The main objective of the study were to'. (2)

1.4 In order to generate an up-to-date bibliography, with correct sources and citations, make the following reference changes in the document.

1.4.1 The source Smith incorrectly gives 2001 as the date of publication. Change the date to 2002. (1)

1.4.2 Add the following book source:
Author: Zide K
Title: Scarce Waters
Year: 2002
City: San Francisco
Publisher: Jossey-Bass (2)

1.4.3 Locate the Gold highlighted text (citation), in the first paragraph, and insert the citation to the source *Smith a*t the end of the text. (1)

1.5     Insert the picture 1Amanzi.jpg from your data folder in the document as follows:

- The image must appear across two columns of text (tight).
- The text must flow around the image.
- Size of the image must be as follows:  height = 5 cm, width = 5 cm.          (3)

1.6     Replace all occurrences of "**villages**" with "**locations**".          (2)

1.7     Locate the text "developed' in the end of third paragraph. Insert an endnote to that word, as follows:

- The endnote must use the Roman number format 'I' (in capital letters).
- Insert the text 'Quoted from Scarce Waters by Zide K' as the endnote text.          (3)

1.8     Apply suitable line and paragraph spacing to the green text at the top of the document, to make it easier to read.          (2)

1.9     Add the current date in the right of the page header. The date should automatically update each time the document is opened.          (2)

1.10    Insert automatic page numbering in the footer as follows:

- The numbers must be in the format Page X of Y.
- Odd page numbers must be displayed right-aligned, and even page numbers left-aligned.          (4)

1.11    Locate the paragraph on page 2 that starts with "There …" and ends with "aspects." highlighted in yellow:

- Place in 2 equal columns
- with 1.5 cm spacing between columns
- insert a line between the columns.          (3)

1.12    Change the page orientation of the last page only, to landscape.
        The orientation of the other pages must remain in portrait.          (2)

1.13    Use the image **1Dam** as a watermark and set the scaling to 120%.          (3)

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**QUESTION 2: WORD PROCESSING**

A form was created for the community to get information on how they use water.

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

| | | |
|---|---|---|
| 2.1 | Format the text form field type under number of occupants to an appropriate type and allow a maximum of two digits. | (2) |
| 2.2 | Insert a drop-down list next to *"Sources of Water"* section so that it lists the three sources of water stated there. | (2) |
| 2.3 | Insert check boxes after each *"Number of Litres per day"*. The check box size should be exactly 10pt. | (2) |
| 2.4 | Insert symbol Wingdings 34 at the beginning of the line above the **"House number"** heading. | (2) |
| 2.5 | Apply any suitable page background to the form. | (1) |
| 2.6 | Set the hyphenation of the whole document to automatic. | (1) |
| 2.7 | Locate the information that appears gold at the bottom of the form and insert this information into any callout you like and remove the gold colour. Change the colour of the message to red font. | (3) |

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## QUESTION 3: SPREADSHEET

The statistical analysis of water usage over the recent weeks are stored in the **3WaterUsage** spreadsheet.

Work in the **WaterUsageData** worksheet.

3.1    Format the heading in row 1 so that it stretches from columns A to E.    (1)

3.2    Use the red double border around the merged cells in row 1.    (2)

3.3    Use a cell formatting feature to ensure that all headings in row 3 are visible. Do not adjust the column width or text direction.    (1)

3.4    Use the freeze pane feature to ensure that the contents in only rows 1 to 3 remain on the screen if the user scrolls down.    (1)

3.5    Use a page setup feature that will display the headings in row 3 on each page if multiple pages are printed.    (1)

3.6    Change the name of **Sheet4** to "Dams EC", and change the colour of this tab to red.    (2)

3.7    The Zwide family uses 8 litres of water per shower. In **Cell E4** use a formula to calculate how many litres of water they used for shower and also include the time that they shower.    (2)

3.8    In **Cell E6** calculate the number of litres used for other household chores and copy to other cells, format to no decimal places.    (3)

3.9    In **Cell B17**, use a formula to calculate the number of litres used by an individual member of the Zwide family. Use a function to round answer to 1 decimal place.    (4)

3.10    People who are saving water are compensated by the municipality. Mr Zwide wishes to reduce the water consumption. The household chores that uses 20 litres and more per day is being wasteful.
Use an **IF- function** in Column F to identify all those household chores that are wasteful, leave the other statement blank.    (3)

3.11    The municipality charges R2.00 per litre of water consumed. Use a **formula** to calculate in **Cell G9** how much will Dishwashing cost be and add the levy of R200 since it is a wasteful chore.    (2)

3.12    Use a formula in **Cell D19** to calculate the average water usage of the Zwide family.          (2)

3.13    Calculate the lowest usage of water in **Cell D20.**          (3)

3.14    Use a formula in **Cell D21** to determine how many times 8 litres or less water were used in 2 minutes or less.          (5)

**Work in the Water Usage Chart worksheet**

3.15    The graph is done to show the percentage of water used per day by each household chore.

Toilet Flushes contribute to 25% of water usage.  Format the block showing Toilet Flush to red and must be pulled out.          (2)

3.16    Use the picture 1Amanzi to fill in the Chart Area.          (2)

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**QUESTION 4:  DATABASE**

A database was created to store statistics for Water usage per day.

Open the **4Water Usage** database.

4.1     Format the **Water Usage** table as follows:

      4.1.1     Set one of the existing fields as the primary key.                                    (1)

      4.1.2     Change the gridlines settings so that both vertical and horizontal gridlines
             are displayed.                                                                                          (1)

      4.1.3     Change the row height of the records to 20 units.                              (1)

      4.1.4     Widen the column of the Water-use Activity field so that it displays
             correctly.                                                                                                  (1)

      4.1.5     Add a new field called *Photo*, which will physically store a photo for each
             "*Water Use Activity*". The new field must be added directly after the
             "*Water Use Activity*" field.                                                                  (3)

      4.1.6     Sort the records ascending using the "*Day 7*" field.                        (2)

      4.1.7     The activities need to be classified as to which time of the day they mostly
             use water.  Insert a new field called "*Use*" and create a combo box with
             the following values:  Morning, Noon and Evening.                          (4)

4.2    Create a form using the table "**Water Usage**".  The form must

- Show all fields
- Tabular layout
- Saved as Water Usage
- With the date in the form footer right aligned
- Header background colour Gold                                                                    (6)

4.3    Insert a button in the "Water Usage Input Form" that will close the form.  This button must be placed in the form footer.                                                                    (3)

4.4    Create a Query called **Saved Water Usage**.  The query must show all those activities that flush and uses less than 6 litres of water on day 1.  Show only the following fields:  Water Use Activity, Day 1, Day 2 and Day 3.                                (3)

4.5    Modify the query **Weekly Usage** by calculating the water usage per week.  Sort it in descending order according to the Water Use Activity field.  The field name must be TotalWaterUsage.                                                                                        (4)

4.6    Create a report using all fields.  Sort according to Water Use Activity field in descending order and in landscape.

Insert the picture **4Water** in the report header on the right.  Calculate the average water usage for Day 3. Save it as My Report.                                                      (6)

                                                                                                                     **[35]**

## QUESTION 5: WEB DESIGN (HTML)

A web page has been created to give people information about the areas in need of water and ways in which they can help to solve this problem.

Open the incomplete **5_WaterWeb** page in a web browser and also in a text/HTML editor e.g. *Notepad* (NOT a word processing program such as Word).

**NOTE:**

*   Question numbers are inserted as comments in the coding as guidelines to show approximately where the answer(s) should be inserted.
*   An HTML tag sheet has been attached for reference.

Your final web page should look like the example below.
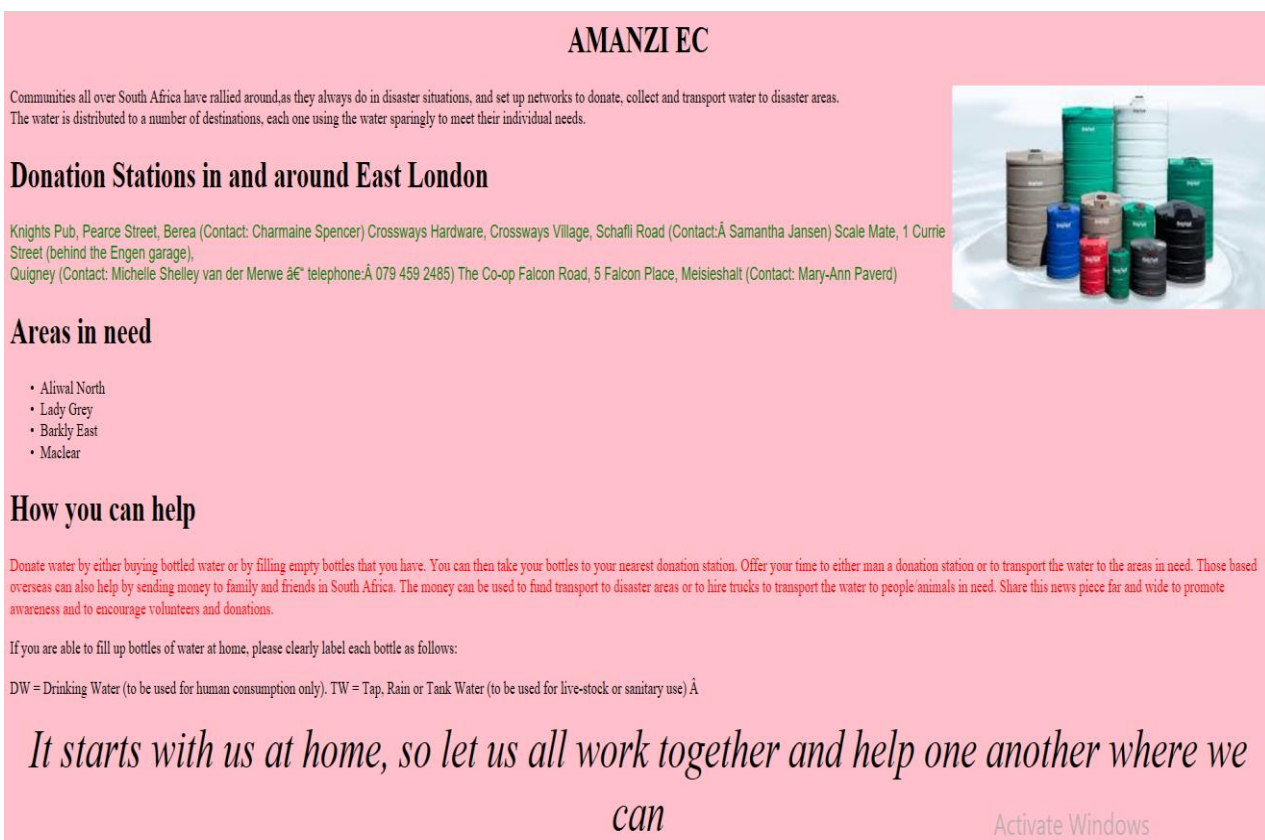


5.1   Set the title of the HTML document to 'Water Web of EC".          (1)

5.2   Change the background colour of the page to pink.          (1)

5.3   Add all the necessary tags and attributes in order to display the heading "Amanzi EC" when it is formatted in a Heading 1 style. The heading must be centred.          (2)

5.4     Insert the image **5Water** after the heading *Amanzi.*

- Set the height and width of the image to 25 percent.
- Align the image to the right.
- Insert an alternate text to display *"Tanks"* if the image does not display.          (6)

5.5     Locate the text starting 'Knights Pups …'.  Modify the necessary tags to:

- Display this text in a paragraph.
- The font must be Arial and font colour green.          (3)

5.6     Locate the items under the heading *Areas in Need* and display it as an ordered list.          (2)

5.7     Add a level 2 heading for the heading "**How you can help**".          (1)

5.8     Display the sentence beginning with *"It starts with us…* found at the bottom of the web page to be font size 20, bold, italics and centred.          (4)

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**QUESTION 6:  GENERAL**

Some people have used more water than the limits agreed upon per month.  The municipality wants to write them letters so that they explain the reasons for their overuse of water.

Open the word document **6Letter** and do the following:

6.1     A letter has been written to all the people affected.  You are asked to edit the letter and to send to all affected people.  The information of these people are stored in a database **6List of Defaulters**.

- Replace the text surname, name and amount with the appropriate field.
- Send the letter to people who used more than 1 000 litres per month.
- Sort the letters according to water used in ascending order.
- Save the document.
- Complete the merge.
- Save the merged document as **6Mergedletters**.                                                              (6)

6.2     Open **6Notes for Kids** document and do the following:

Add a **Table of Contents** in the first page under the heading Table of Contents.  The TOC must be formal showing two levels.                                                      (3)

6.3     Insert any Shape at bottom of page where it says "*Insert Shape here*".  Add text Save Water.  The shape fill must be Blue Accent 5 colour and the text Save Water must be font size 48.                                                                         (4)

6.4     Open **6Graph** and do the following:

A graph for Water Usage has been created in sheet 1.  Copy the Graph to the **6Notes for Kids** document at the end where it indicates **"*Insert Graph here*"**.  Copy it in such a way that when you make changes in the graph **6Graph** the changes automatically appear in the **6Notes for Kids** document.

Make the following changes:

- The litres used in Urban areas in 2013 is 1 200L.
- 2011 in the legend has been repeated. Change the second 2011 to 2012.          (5)

6.5     **Dam Capacity Sheet**

Apply conditional formatting in an appropriate column to show the top 5 dams in terms of capacity and shade them with Light Blue Fill.                                   (4)

6.6     **B54**:  Calculate the number of dams in Eastern Cape.                             (3)

6.7     **D56:**     Use a function to find out how many dams whose date of completion are
unknown.                                                                                    (2)

6.8     Format all the data in column F to no decimal.                                               (3)

6.9     Use a function in **E58** to find the third biggest dam in South Africa.  Read
the comment in cell E59 and do what is requested.                                         (5)

6.10    **E61**:     Use a function to calculate the total capacity of water in the Eastern Cape
dams.

(4)

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**GRAND TOTAL:     180**

## ANNEXURE A – HTML TAG SHEET

| Basic Tags | |
|---|---|
| **Tag** | **Description** |
| `<body></body>` | Defines the body of the web page |
| `<body bg colour="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 a 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 colour="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 "centre" |
| `<br/>` | 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", "centre"; "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 colour="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, centred 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 "centre" 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 |