basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL
SENIOR CERTIFICATE

GRADE 12

COMPUTER APPLICATIONS TECHNOLOGY P1

NOVEMBER 2015 (2)

MARKS: 180

TIME: 3 hours

**This question paper consists of 19 pages,
an HTML tag sheet and a separate 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, normal rules regarding leaving the examination room apply.

2. Type your examination number in the header of EVERY document that you create or save, where applicable.

3. The invigilator will give you a CD/DVD/flash 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 CD/DVD has been issued to you, you must write your centre number and examination number on the CD/DVD. If you are working on the network, you must follow the instructions provided by the invigilator/teacher.

4. 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.

5. This question paper consists of SEVEN questions.

6. Answer ALL the questions.

7. 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.

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

9. At the end of the examination, you must hand in the CD/DVD/flash disk given to you by the invigilator with ALL your answer files saved onto it, OR you should make sure that ALL your answer files are saved on the network/computer as explained to you by the invigilator/teacher. Make absolutely sure that all files can be read. Do NOT save unnecessary files/folders and do NOT hand in duplicate answer files/folders.

10. 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.

11. During the examination you may consult the help functions of the programs that you are using. You may NOT use any other resource material.

GAUTENG

12.   Unless instructed otherwise, 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.

13.   **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.

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

15.   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.

16.   Use centimetres as the unit of measurement when you answer this question paper.

17.   **Alternative instructions for candidates using LibreOffice are given in cases where they differ from the instructions for candidates using Microsoft Office.**

18.   Generally, one mark is allocated per action; therefore, a 2-mark question would usually require TWO actions, et cetera.

19.   The examination folder/CD/DVD/flash disk 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.

• 1Fire_Vuur	Image file
• 1Fynbos	Word processing file
• 1Title_Titel	Image file
• 1Wash_Was	Image file
• 2Entry_Inskryw	Word processing file
• 2Sanbi	Image file
• 3Plant	Spreadsheet file
• 4StatsData	Spreadsheet file
• 5CFKData	Database file
• 5Erica	Image file
• 6Flower	Image file
• 6Fynbos	Image file
• 6Home	HTML file
• 6Protea	Image file
• 6Ref	Word processing file
• 7Answ_Antw	Word processing file
• 7End	Database file
• 7Flora	Word processing file

SCENARIO

Many school groups visit the SANBI (the South African National Biodiversity Institute) gardens. They are assisted in programmes run by the SANBI Environmental Education section.

Because you have an interest in fynbos, you have done research with SANBI. You would now like to share this information with learners at your school.

QUESTION 1: WORD PROCESSING

Open the **1Fynbos** word processing document and insert your examination number in the header.

1.1   Set the gutter margin of the document to 1 cm on the left.

        NOTE: Ignore any warning messages that may appear.   (1)

1.2   The document has a cover page.

        Change the cover page as follows:

        The word 'Fynbos' was placed in a text box. Replace the word 'Fynbos' with the picture **1Title_Titel.jpg** from your examination folder.   (2)

1.3   Justify the text of the first paragraph in the document.   (1)

1.4   Locate the letter 'F' of 'Fynbos' in the first paragraph on page 2 of the document. Apply a dropped cap effect to this letter as follows:

        • The dropped cap must run over FIVE lines.

        • The dropped cap must be 0.5 cm from the text.   (3)

1.5   Locate the text that starts with 'WHAT IS FYNBOS?' and ends with '… within small areas'.

        • Place the text into TWO columns.

        • Ensure that the heading 'RICHNESS OF PLANT LIFE' always appears at the top of the second column.   (2)

1.6   Locate the table after the paragraph that ends with '… within small areas'.

Use word processing features to make the necessary changes to the information and layout of the table in order to resemble the table below.

NOTE:

- The paragraphs in the table are sorted. (NO mark will be awarded for moving the text manually.)

- Take note of the alignment of the text, the formatting of the heading, as well as the outer border used.

FYNBOS	
	Elim Fynbos (Lowland Fynbos) Elim, Southern Cape
	Erica sp. amongst Restios on the east-facing slopes of Keeromsberg, Western Cape
	Mimetes cucullatus (Proteaceae), Bosmansbos, Western Cape
	Proteoid Fynbos dominated by *Protea eximia*, Keeromsberg, Western Cape
	Proteoid Fynbos dominated by *Protea laurifolia, Leucadendron saligna* and Restionaceae on the slopes of Keeromsberg, Western Cape
	Sand Plain Fynbos near Wellington, Western Cape

(5)

1.7   Locate the heading 'THREATS TO FYNBOS'.

Add a hyperlink to the text 'THREATS TO FYNBOS' to link to the picture **1Fire_Vuur.jpg** in your examination folder.   (2)

1.8   Locate the text that starts with the heading 'CONSERVATION ACTION' and ends with '… in the fynbos.' in the next paragraph.

Place only this text in landscape orientation. All other pages should remain in portrait orientation.   (2)

1.9   The bulleted text that appears under the heading 'CONSERVATION ACTION' must be formatted to a multilevel list so that it resembles the example below.

    A   The promotion of public awareness of the Cape Floral Kingdom;
    B   Encouraging land owners to care for their fynbos;
    C   Setting aside important areas of land as nature reserves and national parks;
    D   The conservation of corridors of fynbos within urban areas;
    E   The promotion of ecotours, allowing people to experience the amazing floral diversity of fynbos;
    F   Control of alien, invasive vegetation;
    G   The promotion of environmental awareness exhibitions, for example on ...
        i   World Environment Day
        ii   Arbour Day
        iii Fynbos Day
        iv Careers exhibitions
        v   Marine Day
        vi Care for the Earth Day   (3)

1.10   Locate the text 'DID YOU KNOW?' and remove the comment.   (1)

1.11   Locate the heading 'ACKNOWLEDGEMENTS' below the text 'Gavin W Maneveldt. Botany Dept., University of the Western Cape'.

Add an endnote on the text 'ACKNOWLEDGEMENTS' as follows:

- Use the text above as the text for the endnote.

- Use the letter 'A' as a custom mark.   (3)

1.12   Add an automatically generated bibliography after the text 'Add Bibliography here' at the end of the document.

NOTE: Ignore any warning messages that may appear.   (1)

1.13   Insert the **1Wash_Was.gif** picture from your examination folder as a watermark on the last page only.   (3)

Save and close the **1Fynbos** document.   **[29]**

QUESTION 2: WORD PROCESSING

A draft version of the electronic entry form for learners who would like to attend workshops has been created.

Open the **2Entry_Inskryw** word processing document and insert your examination number in the header.

Refer to the example below to guide you in answering QUESTIONS 2.1–2.5.

Your final document should resemble the example below.

NOTE: Ignore the outer border.

2.1   Format the form heading 'SANBI EDUCATIONAL WORKSHOP ENTRY FORM' to resemble the example on the previous page.   (3)

2.2   Add the logo **2Sanbi.png** in your examination folder to appear in the position as shown in the example on the previous page.

Resize the logo so that the width is 8.1 cm and the height 3.6 cm.   (4)

2.3   Format the heading 'Personal Information' to resemble the heading 'Contact Information', using the same style.   (1)

2.4   The form uses legacy form controls. Some form field controls have been added to the form already.

Change the form as follows:

2.4.1   Set and apply appropriate tabs to align the form controls and the labels under the headings 'Personal Information' and 'Contact Information' as follows:

- The first tab is set at 1 cm.

- The second tab is set at 11 cm.   (4)

2.4.2   Add the items 'Male' and 'Female' to the drop-down form field next to the word 'GENDER'.   (2)

2.4.3   Add an appropriate form field control next to the text 'ID NUMBER'. This field should only accept 13 characters.   (2)

2.4.4   Format the text form field control next to the text 'DATE OF BIRTH ' to allow only dates with the format yyyy/MM/dd.   (2)

2.4.5   Add a control next to the text 'WEDNESDAY' that will be similar to the one above it in the form.   (1)

NOTE: Do NOT lock or protect the form.

2.5   Add the text 'Entry form' to the document's subject property.   (1)

Save and close the **2Entry_Inskryw** document.   **[20]**

QUESTION 3: SPREADSHEET

Use formulae and/or functions for ALL calculations in the spreadsheet. Use absolute cell references <u>only</u> where necessary to ensure that formulae are correct when you copy it to other cells in the same column (copy down). 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.

Data on threatened plants has been collected and summarised in this spreadsheet.

Open the **3Plant** spreadsheet. Work in the **Plants_Plante** worksheet.

3.1	Change the height of **row 1** to 40 pt.	(1)
3.2	Add the heading 'List of Plants' in **cell A1** as follows:	

- Use the font type 'Aharoni'.
- Apply any pattern style of your choice to the cell. (3)

3.3	Use the freeze pane feature to ensure that the contents in **row 1** and **row 2** remain on the screen if the user scrolls down.	(2)
3.4	Use a cell formatting feature to display the headings in **row 2** over TWO lines.	(1)
3.5	Apply an orange border around **cells A2:E79**.	(1)
3.6	Add a function in **cell E3** to determine the number of plants that have the word 'Sugarbush' in their species name (**column B**).	(5)

3.7   Use the data in the **Summary** worksheet to create a chart/graph to look like the example below. This chart/graph should appear in the **Summary** worksheet.

Species per year

HINT: Take the following chart/graph characteristics into account when answering this question:

- The type of chart/graph
- The rows and columns are switched
- The labels on both axes
- The title of the chart/graph
- The legend
- The intervals on the axes
- Data labels   (9)

Save and close the **3Plant** document.   **[22]**

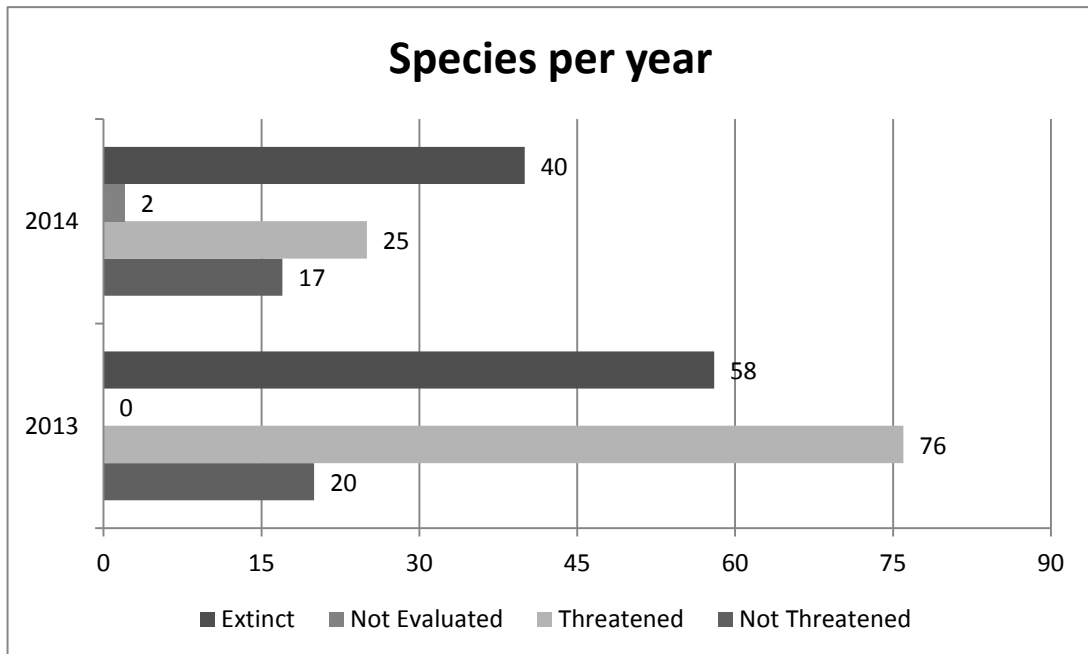**QUESTION 4: SPREADSHEET**

Use formulae and/or functions for ALL calculations in the spreadsheet. Use absolute cell references <u>only</u> where necessary to ensure that formulae are correct when you copy it to other cells in the same column (copy down). 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.

A spreadsheet has been created to summarise the status of the ecosystem.

Open the **4StatsData** spreadsheet. Work in the **Stats** worksheet.

4.1   Format the worksheet as follows to improve the readability:

        4.1.1   Merge and centre the text in **cells A1:J1**.   (2)

        4.1.2   Ensure that all the headings in **row 2** are similarly aligned, with the text clearly visible and readable, by adjusting the text direction.   (2)

4.2   Insert a function in **cell C3** to determine the average number of hectares (**column B**) used in this conservation survey.   (2)

4.3   Apply conditional formatting to **column E** to display all the negative values in a red font colour and all the positive values in a blue font colour.   (4)

4.4   The threat status is stored in **column G**.

        Use a LOOKUP function in **cell F3** and the data in the **Code_Kode** worksheet to determine what the threat status code for each species is, based on the threat status in **column G**.

        Display only the abbreviation, for example EN.

        The function must work correctly if copied down to the rest of the cells in **column F**.   (6)

4.5   Insert an IF-function in **cell H3** to determine the protection level of the species using the conservation target data (**column D**) as follows:

- A conservation target of more than 30 should display a protection level of 'Well'.

- A conservation target of more than 25 and less than or equal to 30 should display a protection level of 'Moderate'.

- The rest of the conservation targets should display a protection level of 'Poor'.

        Copy the function to the rest of the cells in **column H**.   (6)

4.6   Use a combination of text functions in **cell I4** to create a unique species code
       for a species name (**column A**).

       The species code consists of the following:

       - The first three letters of the species name (**column A**)

       - Followed by the number of characters in the species name

       - Followed by the threat status code (**column F**)

       Example: Agt25LT will be the species code for **cell A3**.   (7)

Save and close the **4StatsData** document.   **[29]**

QUESTION 5: DATABASE

A database containing data on different plant species has been created.

Open the **5CFKData** database.

5.1   Change the design of the **Plant** table as follows:

    5.1.1   Change the field size of the *FamilyCommon* field to 50.   (1)

    5.1.2   Change the field properties of the *EndemicSpecies* field so that:

- It is a required field
- The data in this field is displayed in fixed format   (2)

    5.1.3   Change the properties of the *Listing* field so that the user can choose from the options 'Endangered' or 'Threatened' when entering data.   (2)

    5.1.4   Create an input mask for the *PlantCode* field to accept data in the following format:

- ONE compulsory letter

- Followed by at least TWO but possibly THREE characters that could consist of either digits or letters

- Display in capital letters

Example: KLM, YM9R, GH2 or C123
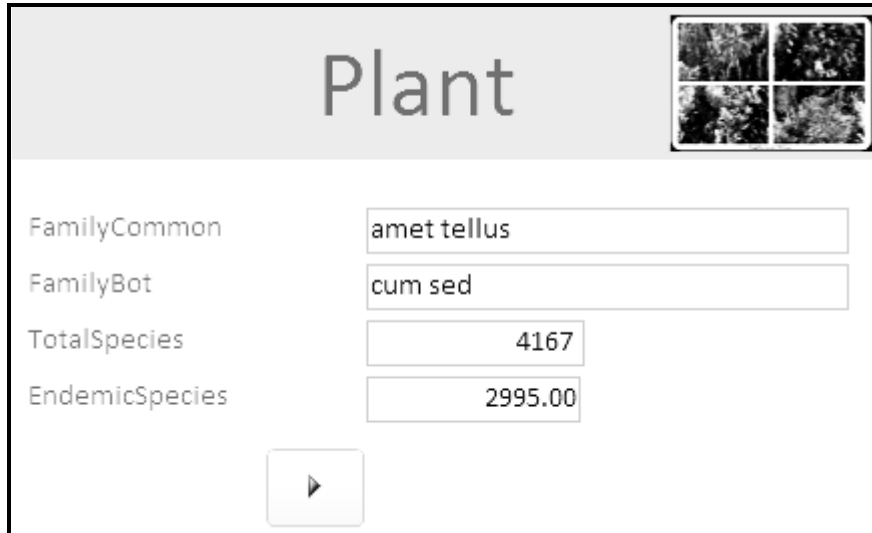
NOTE: Ignore any warning messages that may appear.   (5)

    5.1.5   Set the primary key on a more appropriate field.   (1)

Save and close the **Plant** table.

5.2   Create a form called **frm5_2** based on the **Plant** table, containing the following fields: *FamilyCommon*, *FamilyBot*, *TotalSpecies* and *EndemicSpecies.*

The form should resemble the example below.

The following should be taken into consideration:

- Only add the fields required as shown on the form above.

- The font size of the heading is 36 pt.

- Note the alignment of the heading.

- The background of the form header is yellow.

- The image **5Erica.jpg** in your examination folder is displayed in the form header, as shown above.

- Add a button from the available controls to the form. The action of the button is to move to the next record.

Save and close the **frm5_2** form.   (10)

5.3   Create a query called **qry5_3**.

The query must use the **Plant** table to only display the *FamilyCommon* and *FamilyBot* fields of all records where the number of *EndemicSpecies* is more than 1200.

Save and close the **qry5_3** query.   (4)

5.4   Open the **qry5_4** query.

- Sort and display the *FamilyBot* field in descending order.

- Insert and display a calculated field called *Perc* which will calculate the percentage that *EndemicSpecies* is of the *TotalSpecies* for each record.

Save and close the **qry5_4** query.   (6)

5.5   Create a report called **rpt5_5** based on the **Plant** table.

- Show only the *FamilyCommon*, *FamilyBot*, *EndemicSpecies* and *Genus* fields.

- Group the records according to the *EndemicSpecies* field.

- Display the report in landscape format.

- Insert a function to calculate the average number of ALL the endemic species in the report.

- Round off the answer to ONE decimal place.

- Add a descriptive label to the calculation.

- Ensure that all the data displays fully.

Save and close the **rpt5_5** report.   (10)

Save and close the **5CFKData** database.   **[41]**

QUESTION 6: WEB DESIGN (HTML)

You were asked to complete a web page on fynbos species.

Open the incomplete **6Home** web page in a web browser and also in a text/HTML editor.

NOTE:

- Question numbers are inserted as comments in the coding 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.

Fynbos Information

1. Erica
2. Protea

Fynbos is the most prolific plant type found in the Cape Floral Kingdom. The Cape Floral Kingdom is the largest of 6 floral kingdoms found worldwide.

There are four main types of plants found in the Fynbos. These are **Erica**, **Protea**, **Restio** and **Geophytes** (plants with underground food sources).

References

References for the sources and images used in this website can be found in the Website References.

Interesting sites

A lot of useful information about fynbos (and many other plants) can be found on the PlantZAfrica.com website. The site will also guide you if you plan to grow fynbos in your garden.

Erica and Protea

Botanical Name	Common Name	Image
Erica Nevillae	None	
Protea Cynaroides	King Protea	

NOTE: Use the example on the previous page to help you with this question.

6.1	Insert your examination number as an additional comment.	(1)
6.2	Add HTML code to display the text 'Fynbos' in the browser tab.	(1)
6.3	Format the heading 'Fynbos Information' to appear in a red font colour and in italics.	
	NOTE: Do NOT remove any existing formating.	(2)
6.4	Change the bulleted list ('Erica' and 'Protea') so that it displays as a numbered list instead of a bulleted list.	(1)
6.5	Add a horizontal line below the numbered list as shown in the example on the previous page and set the width of the horizontal line to 50%.	(2)
6.6	Add HTML code to display the image **6Flower.jpg** in your examination folder as follows:	

- The image must appear below the horizontal line, as shown in the example on the previous page.

- The height of the image must be 191 and the width 181.

- The text 'Nevillea' should display if the picture cannot be displayed. (6)

6.7	Display the text 'Erica' in the second paragraph in bold.	(1)
6.8	Insert a link on the words 'Website References' to link to the document **6Ref.docx** in your examination folder.	(3)
6.9	Format the table as follows:	

- Add a border with a thickness of 2 to the table.

- Change the spacing between the cells to 1.

- Change the background colour of the first row to any colour of your choice. (3)

Save and close the **6Home** document. **[20]**

QUESTION 7: GENERAL

Open the **7Flora** word processing document and insert your examination number in the header.

7.1　　Add <u>automatic</u> page numbering in the footer of the document as follows:

- Start the page numbering on the page after the cover page and the table of contents page (the third page), numbering from page 1 onwards.

- Even page numbers are right-aligned in the footer.

- Odd page numbers are left-aligned in the footer.　　　　　　(5)

7.2　　Locate the heading 'Table of Contents'.

　　　　Insert a table of contents for the document as follows:

　　　7.2.1　　Display TWO levels of headings ('Heading 1' and 'Heading 2') with page numbers with no leader tabs.　　　(3)

　　　7.2.2　　Ensure that the following headings appear as level 2 headings in the table of contents:

　　　　　　　　　RICHNESS OF PLANT LIFE

　　　　　　　　　ANIMALS LIVING IN FYNBOS

　　　　　　　　　THREATS TO FYNBOS

　　　　　　NOTE: The text can be found in the document.　　　(2)

Save and close the **7Flora** document.

7.3   You were asked to assist with the analysis of data about lemurs stored in the **7End** database.

Open the **7Answ_Antw** word processing document and insert your examination number in the document.

This question requires you to give the answer and <u>briefly</u> explain the <u>specific</u> method/formula/function you used to obtain the answer.

EXAMPLE:

QUESTION	BRIEF EXPLANATION	ANSWER
How many boys are in the Grade 12A class?	Filter to extract the boys of 12A and then use the Count function.	24

Use the **LemurFamily** table in the **7End** database to answer the questions below.

7.3.1   How many records are there in the table?

NOTE: NO explanation is required.   (1)

7.3.2   All the records contain data about lemurs.

How many lemurs have no average size listed?   (2)

7.3.3   What is the common name of the lemur that Forsyth Major classified as vulnerable in 1894?   (2)

7.3.4   How many types of lemur families are there?   (2)

7.3.5   What is the average size of all the endangered species?   (2)

Save and close the **7Answ_Antw** document.   **[19]**

                                                                TOTAL: 180

BIBLIOGRAPHY

Visual sources were taken from the following:

Picture on page 4: http://www.botany.uwc.ac.za/envfacts/fynbos/

Pictures on page 5: http://www.plantzafrica.com/vegetation/fynbos.htm

Picture on page 7: http://www.sanbi.org

Pictures on page 14: Google Images

Picture on page 16: http://www.botany.uwc.ac.za/envfacts/fynbos/

HTML TAG SHEET

Basic Tags	
Tag	**Description**
`<body></body>`	Defines the body of the web page
`<body bgcolor="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 web page
`<html></html>`	Creates an HTML document – starts and ends a web page
`<title></title>`	Defines a title for the web page
` `	Inserts a line break
`<!-- -->`	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
Links Tags	
Tag	**Description**
`<a href="URL"></a>`	Creates a hyperlink
`<a href="URL"><img src="name"></a>`	Creates an image link
`<a name="NAME"></a>`	Creates a target location in the document
`<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 be "left", "right", "center", "bottom", "top", "middle"
`<img src="name" border="1">`	Sets the size of the 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 a line
`<hr width="80%"/>`	Sets the width of a 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, 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) ("left", can also be "center" or "right")
`<tr valign="top">`	Sets the vertical alignment for cell(s) ("top", 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

COMPUTER APPLICATIONS TECHNOLOGY P1 – NOVEMBER 2015(2)

180

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

CENTRE NUMBER _____

EXAMINATION NUMBER _____

WORK STATION NUMBER_____

SUITE USED (Mark appropriate box with a cross (**X**))	LibreOffice 4.4 or higher	Microsoft Office 2007	Microsoft Office 2010	Microsoft Office 2013
WEB BROWSER USED (Mark appropriate box with a cross (**X**))	Mozilla Firefox	Google Chrome	Internet Explorer	Other (Specify)

FOLDER NAME_____

Candidate to enter the file name(s) used for each answer. Tick if saved and/or done.

Question Number	File name	Saved (✓)	Done (✓)	Maximum Mark	Mark Achieved	Marker Initial/ Code
1				**29**		
2				**20**		
3				**22**		
4				**29**		
5				**41**		
6				**20**		
7				**19**		
TOTAL				**180**		

Comment *(for office/marker use only)*

_____

_____