basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL
SENIOR CERTIFICATE

GRADE 12

COMPUTER APPLICATIONS TECHNOLOGY P1

NOVEMBER 2017

MARKS: 180

TIME: 3 hours

**This question paper consists of 17 pages,
an HTML tag sheet, an input mask character 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.   Enter your examination number in the header or footer 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 examination number and centre number on the CD/DVD. If you are working on the network, you must follow the instructions provided by the invigilator/educator.

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/educator. Make absolutely sure that all files can be read. Do NOT save unnecessary files/folders. 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 offline help functions of the programs that you are using. You may NOT use any other resource material.

       Please turn over

12.   Unless instructed otherwise, use formulae and/or functions for ALL calculations in spreadsheet questions. 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 the data changes.

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

17.   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.

• 1Harvest	Word processing file
• 2Pic	Image file
• 2Stay	Word processing file
• 3Acc	Spreadsheet file
• 4Coin	Image file
• 4Quest	Spreadsheet file
• 5Visit	Database file
• 6Hectare	Image file
• 6More	Image file
• 6SAStats	Word processing file
• 6Viti	HTML file
• 7Calc	Spreadsheet file
• 7Rep	Database file

SCENARIO

Every year several festivals are held all over South Africa. These festivals include food festivals, flower festivals, cherry festivals and wine festivals.

The Harvest Food Festival is held in November every year. You were asked to research the Harvest Food Festival.

QUESTION 1: WORD PROCESSING

Open the **1Harvest** word processing document, which contains an overview of the Harvest Food Festival, and insert your examination number in the header.

1.1 Follow the instructions below to change the cover page so that it appears similar to the one in the example below.

NOTE: The WordArt and changed picture may appear slightly different from that which is shown below.

1.1.1 Format the heading 'HARVEST FOOD FESTIVAL' as follows:

- Apply any WordArt of your choice to the heading.
- Rotate the WordArt by 90°. (2)

1.1.2   Make the following changes to the picture below the text 'A FEAST FOR THE SENSES':

- Crop the image to display only the basket with the grapes, as shown on the previous page.
- Change the height to exactly 10 cm and the width to exactly 12 cm.
- Apply any oval picture style or shape of your choice to the picture.   (4)

1.1.3   Find the table with the date and venue and format it as follows:

- Set the default value of the top cell margin of the table to 0.1 cm.
- Do not display any cell borders.   (2)

1.2   Insert a page break before the heading 'General overview'.   (1)

1.3   The 'Display1' and 'Display2' styles appear in the document.

1.3.1   Remove the 'Display1' style so that it is not part of the 'Quick Style Gallery' any more.   (1)

1.3.2   Modify the 'Display2' style as follows:
- Add numbering in the format 1., 2., etc.
- Add any border around the text.
- Decrease the indent of the text so that it is aligned to the left margin.
- Update all text currently formatted with the 'Display2' style.   (4)

1.4   Find the text 'Gourmet Lane ()' on the second page and create a cross reference to 'Figure 3: Gourmet Meals' to appear within the brackets '()'.   (2)

1.5   Find the word 'explore'.

Change this word's language to English (South Africa).   (1)

1.6   Find the text under 'Festival opening times:'. Note the tab settings and tab positioning and format the text using tabs, as shown below.

Friday _____ 15h00-21h00

Saturday _____ 10h00-18h00

Sunday _____ 10h00-18h00   (6)

1.7   Find the text 'Coetzenburg' below the heading '4. Gourmet Lane' and do the following:

- Insert a citation <u>next to</u> this text after the book source: Jean Ward, 'Coetzenburg: A Tourist Site'.
- Do not display the year.   (2)

1.8   The entry 'Jumping Castles' for the picture below the subheading '7. Health Kiddies Area' does not appear in the table of figures on the last page.

    1.8.1   Make the necessary changes to ensure that the reference to the picture will be included in the table of figures when it is updated.   (2)

    1.8.2   Update the table of figures on the last page.   (1)

1.9   Insert an automatically generated bibliography on the last page immediately below the text 'Bibliography'.

The bibliography should appear in the APA style.   (2)

1.10   Format the page numbering in the document as follows:

- Do not display a page number on the first page of the document.
- In **section 2** on the last page of the document, change the page numbering format to i, ii, iii, etc. AND start the numbering from i.
- Keep the style of the page number with the 'i' the same as the style of the previous pages, as shown below.

i

NOTE: Ignore the position of the page number of section 2.   (4)

Save and close the **1Harvest** document.   **[34]**

QUESTION 2: WORD PROCESSING

The **2Stay** word processing document provides information about the types of accommodation available to the Harvest Food Festival visitors. Open the document and insert your examination number in the header or the footer.

2.1   Change the page layout as follows:

- Set the page size to 'Legal'.
- Set the multiple pages to 'Book fold'.   (2)

2.2   The oldest Cape Dutch or Victorian villa is 600 years old.

Find the comment on the first page of the document. Respond to the question with a comment that answers the question.   (2)

2.3   Add a watermark to the document as follows:

- Use the **2Pic** image (found in the examination folder).
- Scale the watermark image to 200%.   (3)

2.4   Find the text 'Booking Form' on the last page of the document and do the following:

- Find the check box form field next to the text 'Special Shopper' and set the default value of the check box to checked.
- Add the 'B and B' option to the combo box control next to the text 'Type of Accommodation'. Ensure that this option appears first.
- Format the text form field control next to the text 'Total' to:
  o   Accept only numbers
  o   Display the value in South African currency
  o   Display help text 'Days*Rate' when the Help key (F1) is pressed   (7)

2.5   Find the text 'Insert SaveDate field' at the bottom of the document and replace it with a field containing the date on which the document was <u>saved</u>.   (2)

Save and close the **2Stay** document.   **[16]**

QUESTION 3: SPREADSHEET

NOTE:

- Use formulae and/or functions for ALL calculations in the spreadsheet.
- Use absolute cell references ONLY where it is required by the question to ensure that formulae are correct when you copy them 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 the existing data changes.

Open the **3Acc** spreadsheet that contains information about accommodation.

Work in the **Accom_Verblyf** worksheet.

3.1   Format **row 6** as follows:

- Change the height of **row 6** to 45 pt.
- Wrap the headings in **row 6**.   (2)

3.2   Insert a formula in **cell H7** to determine the total number of nights Elmarie Raymond will stay at her accommodation.   (2)

3.3   Use a VLOOKUP function in **cell I8** to determine the rate per night for the accommodation booked by Marsden Santos. Use the accommodation information in **column D** and the lookup table in the **Rate_Tarief** worksheet.

Ensure that the function will work correctly if it is copied to the rest of the cells in the column.   (4)

3.4   Insert a formula in **cell J9** to determine the total amount due for accommodation for the number of nights given in **column H** and at the rate per night given in **column I**.

Change the format to currency.   (3)

3.5   Discount is awarded based on the star rating of the accommodation of a person (**column K**) and on the amount (**column J**).

Each star represents 1% discount.

EXAMPLE:
- A visitor who stays in accommodation with a one-star rating ('*') will get 1% discount on the amount due.
- A visitor who stays in accommodation with a four-star rating ('****') will get 4% discount on the amount due.

Insert a function/formula in **cell L10** to determine the amount of discount the guest will receive.   (4)

3.6   The 7th character of the identity number (**column C**) refers to the gender of a person:

EXAMPLE: **8102182331045:   810218   2   331   045**

Gender

The steps to obtain the gender of a person are:

Step 1: Extract the character representing the gender from the identity number.
Step 2: Use a text function to convert this character to a number.
Step 3: Determine whether the number represents a male or female:
A number greater than or equal to 5 represents a male, while a number smaller than or equal to 4 represents a female.

The function in **cell M7** attempts to extract the character representing the gender from the identity number. The function, however, currently returns more than one character.

Modify the function to correctly extract the character in step 1 and add steps 2 and 3 to the function to complete it, so that 'Male' or 'Female' is displayed in **cell M7**.   (6)

3.7   Insert a function in **cell G2** to determine the third lowest rate per night (**column I**).   (3)

3.8   Insert a function in **cell G3** to determine the most frequently occurring rate per night (**column I**).   (2)

3.9   Insert a function in **cell G4** to determine the total amount earned (**column J**) by all the 'Country' accommodation types (**column E**).

EXAMPLE: 'Country House' or 'Country Inn'.   (5)

Save and close the **3Acc** spreadsheet.   **[31]**

QUESTION 4: SPREADSHEET

NOTE:

- Use formulae and/or functions for ALL calculations in the spreadsheet.
- Use absolute cell references ONLY where it is required by the question to ensure that formulae are correct when you copy them 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 the existing data changes.

Open the **4Quest** spreadsheet that contains the results of a questionnaire.

Work in the **Respons** worksheet.

4.1   The answers to the question regarding the reason for visiting festivals are stored in **column H**.

Insert a function in **cell H3** to determine how many visitors did NOT respond to this question.   (2)

4.2   The end time (**column K**) for the completion of a questionnaire is obtained by adding 20 minutes to the starting time (**column J**).

Insert a TIME function in **cell K6** to determine the end time for the completion of the questionnaire.

NOTE: You may assume that the seconds in the time function will always be set to 0.   (4)

4.3   The total number of visitors is stored in **cell K2**.

Insert a formula in **cell K3** to determine the percentage of visitors who gave a reason (**column H**) in the questionnaire for visiting festivals.   (4)

4.4   Use conditional formatting so that the names and surnames in **column A** and **column B** display with any fill colour only if the frequency in **column G** equals the frequency selected in **cell B3**.

HINT: Use a formula in the conditional formatting feature.   (4)

Work in the **Earn_Verdien** worksheet.

4.5   The column chart/graph was created using the data in the **range B4:C10** in the **Earn_Verdien** worksheet.

- Add the title 'Amount' to the vertical axis.
- Display the **4Coin** image in the second column, stacked and scaled in units of 100 000.
- The horizontal axis labels should be displayed, as shown in the chart/graph below, AND in major units of two days.

Festival Earnings per Day

(5)
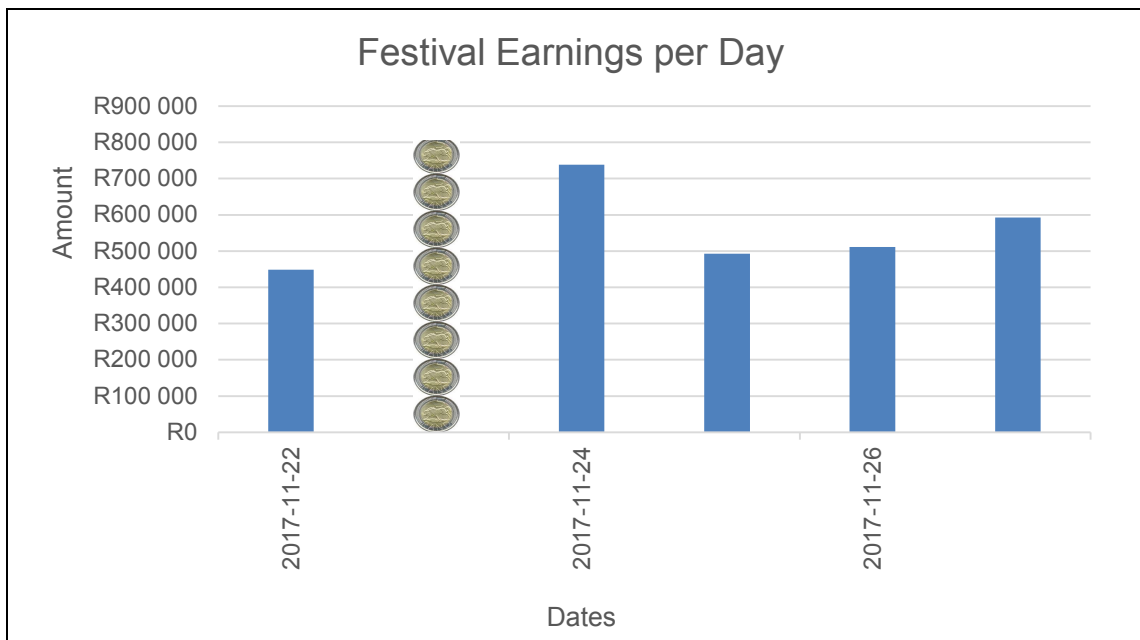
Save and close the **4Quest** spreadsheet.   **[19]**

QUESTION 5: DATABASE

Open the **5Visit** database that contains visitors' accommodation details.

5.1   The accommodation details of all visitors are stored in the **tbAccom** table.

        Open the **tbAccom** table in design view.

        5.1.1   Set the field size for the *Name* field to 30.   (1)

        5.1.2   Ensure that a user <u>has</u> to enter a surname in the *Surname* field.   (1)

        5.1.3   Create an input mask for the *IdentityNumber* field to accept data in the following format only: 9007185285083.   (2)

        5.1.4   Add 'EC' as the first option in the existing drop-down list of the *Province* field.   (2)

        5.1.5   Change the field properties of the *DateIn* field so that:

               •   The user can only enter a date between 2017/11/18 and 2017/11/28 (inclusive)
               •   Appropriate validation text is entered as a message   (4)

        5.1.6   Modify the expression of the calculated field *Code* to return the first THREE letters of a visitor's SURNAME.   (2)

        Save and close the **tbAccom** table.

5.2   Open the **frm5_2** form.

        Modify the form as follows:

        •   Change the form header text to your examination number.
        •   The date picker control for the *DateIn* field must NOT be displayed when the form is switched to form view.
           HINT: The date picker property is found in the *DateIn* text box properties under the Format tab.
        •   Format the *Rate* field to currency.
        •   Insert the date and time in the form footer so that it automatically updates every time the form opens.

        Save and close the **frm5_2** form.   (6)

5.3　　Open the **qry5_3** query.

- Modify the query to display all visitors from Limpopo (LP) or Mpumalanga (MP).
- Sort the data alphabetically according to surnames.

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

5.4　　Open the **qry5_4** query.

Modify the query to display the total number of nights each accommodation will be visited, as shown in the table below.

NOTE:　The *SumOfNumberOfNights* field uses the *NumberOfNights* field and will be calculated.

Accommodation	SumOfNumberOfNights
Alverie Guest House	8
Avenir Country Lodge	11
Eenheid Self Catering	18
Everyellow Lodge	1
Everyellow Manor and Spa	14
Groen Guest Farm	19
Hazyview Country House and Spa	13
Heaven Valley Hotel	11
Klein Stel Lodge	5
LaMain	19
Lanrac Hotel and Spa	8
Montvue	2
Rosenview Guest House	16
Roseview Guest House	14
Sara Wine Estate and Hotel	24
Serenity Hotel	21
Sun Guest House	9
Vreden Estate	6
Vreede Self Catering	11
Werent Hotel and Spa	28

Save and close the **qry5_4** query.　　　　　　　　　　　　　　　(2)

5.5　　Create a query called **qry5_5** based on the **tbAccom** table, which will display only the *Name* and *Surname* fields for all the visitors who:

- Stayed for 5 nights or less AND
- Spent an amount less than R800 or more than R2 000 AND
- Did not give a date of birth (*DOB*)

Save and close the **qry5_5** query.　　　　　　　　　　　　　　　(7)

5.6   Open the **qry5_6** query.

- Create and display a calculated field with the name *Discount* to calculate the discounted amount after 10% has been deducted from the amount.
- Ignore the formatting.

       Save and close the **qry5_6** query.   (4)

5.7   Open the **rpt5_7** report that is based on the **tbAccom** table.

- Apply blue shading to the *Province* field in the *Province* group header.
- Sort the *Amount* field in descending order.
- Use a function to calculate the total amount spent on each accommodation.

       Save and close the **rpt5_7** report.   (5)

Save and close the **5Visit** database.   **[40]**

QUESTION 6: WEB DESIGN (HTML)

A web page was created, but has not been completed. Follow the instructions below to complete the web page.

Open the incomplete **6Viti** web page in a web browser and also in a text/HTML editor (NOT a word processing program, such as Word).

NOTE:

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

Your final web page must look like the example below.
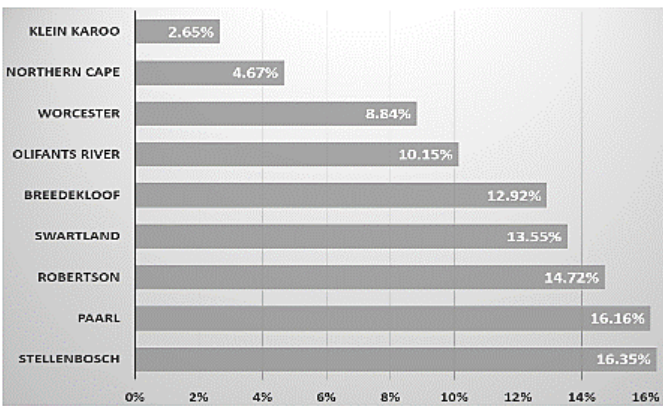
NOTE: Use the example on the previous page to help you with this question.

6.1   Set the font type of the body to 'Arial'.   (1)

6.2   Format the text 'Growing Grapes' as follows:

- Set the alignment to centre.
- Set the font colour to blue.   (2)

6.3   Add a horizontal line of size 3 below the heading 'Growing Grapes'.   (2)

6.4   Apply bullets to the items under the text 'The choice of variety will depend on:' as shown below. Note the shape of the bullets.

> The choice of variety will depend on:
> o   the composition of the soil
> o   the climate
> o   situation of vineyard   (3)

6.5   Insert the picture **6Hectare.png** (found in the examination folder) below the heading 'Distribution of grape vineyards' and set the height to 250 and the width to 350.   (4)

6.6   Edit the table as follows:

- Change the table border to 5.
- Merge row 1, as shown below.
- Add an additional row, as shown below, and place the text in the appropriate cells.

Variety of grapes	
Vine types	**Sales**
Table grapes	275 487 952
Rootstocks	215 587
Currants*	987 125
Sultana	148 759 871

(5)

6.7   Find the image **6More.jpg** at the end of the web page. Create a link on the image so that, when the image is clicked, it will open the document **6SAStats.docx** (found in the examination folder).   (3)

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

QUESTION 7: GENERAL

Visitors can win many prizes at the Harvest Food Festival.

Open the **7Calc** spreadsheet and work in the **Num_Nom** worksheet.

7.1   A palindromic number is a number that is the same when written forward and backward. Examples of palindromic numbers: 343, 121, 242, 535 and 787.

Determine whether a random number is a palindromic number by completing the following steps:

- Replace the number in **cell A3** with a randomly generated 3-digit number.
- Extract the first digit of the randomly generated number in **cell B3**.
- Extract the last digit of the randomly generated number in **cell C3**.
- In **cell D3**, check whether the number is palindromic. If it is palindromic, display the text 'Yes', or else display 'No'.   (10)

7.2   Work in the **Vouch_Bewys** worksheet.

7.2.1   All visitors who celebrate their birthdays from today onwards will receive a wine voucher.

Insert a function in **cell E2** to display 'True' if the visitor qualifies for a voucher, or 'False' if a visitor does not qualify. Copy the function for the rest of the visitors.   (7)

Save the **7Calc** spreadsheet.

7.2.2   Use the data in the **Vouch_Bewys** worksheet of the **7Calc** spreadsheet to create a report called **rpt7_2** in the database **7Rep**, as shown below.

rpt7_2			
Name_Naam	Surname_Van	Gender_Geslag	DOB_Geboortedatum
Ocean	Rojas	Female	1971/06/20
Sonia	Barlow	Female	1962/10/08
Caryn	Mack	Female	1991/08/17
Philip	Vinson	Male	1969/10/12
Kylie	Koch	Female	1982/04/04
Maggy	Riggs	Female	1975/07/12
Iola	Gray	Female	1967/11/21
Jelani	Myers	Female	1972/01/26
Paul	Robbins	Male	1975/11/18
Brennan	Maddox	Male	1984/12/08

(3)

NOTE: Only a part of the report is shown above.

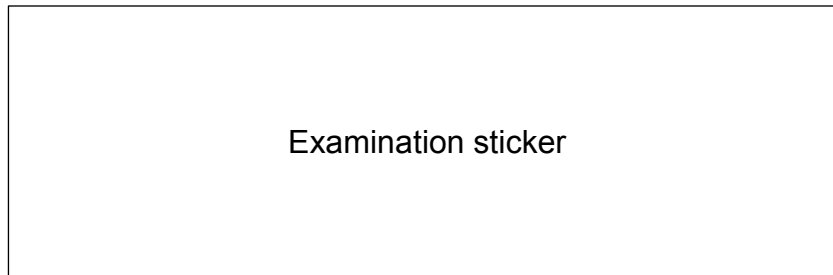Save and close the **7Calc** spreadsheet and **7Rep** database.   **[20]**

TOTAL: 180

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"; "bottom", "top", "middle"
`<p align="center"><img src="name"></p>`	Aligns an image to the "center"
`<img src="name" border="1">`	Sets 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 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

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 Windows Control Panel.)
<	Causes all characters to be converted to lower case
>	Causes all characters to be converted to upper case
!	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)

Examination sticker

180

COMPUTER APPLICATIONS TECHNOLOGY P1 – NOVEMBER 2017

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**))	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	Mark achieved	Marker	SM	CM	IM/EM
1	1Harvest			**34**					
2	2Stay			**16**					
3	3Acc			**31**					
4	4Quest			**19**					
5	5Visit			**40**					
6	6Viti			**20**					
7	7Calc			**20**					
	7Rep								
TOTAL				**180**					

Comment *(for office/marker use only)*

_____

_____