basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE EXAMINATIONS/
NATIONAL SENIOR CERTIFICATE EXAMINATIONS

COMPUTER APPLICATIONS TECHNOLOGY P1

2022

MARKS: 150

TIME: 3 hours

**This question paper consists of 18 pages,
an HTML tag sheet, an input character mask sheet, two pages for planning 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 tasks associated with the examination have been finalised. During the examination, the standard examination 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 the 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 SEVEN 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 regularly as a precaution against possible power failures.

10.   You may NOT use any resource material.

11.   Accuracy will be taken into account.

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 the Ruler are activated.

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

• 1Seychelles	Image
• 1Types	Word processing file
• 2Confidential	Zipped file
• 2Top10	Word processing file
• 3Population	Spreadsheet
• 4Bookings	Spreadsheet
• 4Logo	Image
• 5Details	Database
• 6_1Button	Image
• 6_1Mauritius	Image
• 6_1Win	HTML file
• 6_2Cocoa	Image
• 6_2Expensive	HTML file
• 6_2Fregate	Image
• 6_2Mustique	Image
• 7Card	Word processing file
• 7Discount	Spreadsheet
• 7Entrance	Spreadsheet

SCENARIO

An island is an isolated piece of land that is surrounded by water. Some islands are inhabited while others remain deserted. Many of the tropical islands are popular tourist destinations.

QUESTION 1: WORD PROCESSING

Open the **1Types** word processing document that contains interesting facts about islands. Insert your examination number in the header or footer.

1.1 Format the heading 'Island Types' to the Title style. (1)

1.2 Apply a word processing feature to the five images found on page 1, so that the images can move as one object. (1)

1.3 Find the text starting with 'Continental islands …' and ending with '… volcanic origin.' and apply a 3 pt shadow border to surround both paragraphs. (2)

1.4 Modify the drop cap 'O' of the word 'Oceanic' below the heading 'Oceanic Islands' so that it drops three lines and appears 1 cm away from the text. (2)

1.5 Find the text starting with 'How many islands …' and ending with '… island formation.'. Change the layout of the text to appear as follows:

> **How many islands are there?**
>
> Islands are intrinsically impermanent. The more stable oceanic islands last for a relatively brief time of 5 - 10 million years. Some islands drown, as result of erosion, subsidence of the ocean crust, or rising sea level. Sea levels are related in part to the amount of water bound up in the polar ice caps or released into the oceans; and the size of the polar ice caps is related to a variety of factors including variations in the positions of continents, the orientation of Earth's axis, and the amount of cloud cover.
>
> Sea level is fairly high now; it was lower during the Little Ice Age, circa fourteenth to nineteenth century, and even lower about 18 000 years ago. A lowering of sea level brings drowned islands back into view.
>
> Ongoing volcanism continues to add to existing islands and creates new ones.
>
> An example is Surtsey, off the southern coast of Iceland. This island came into existence with a submarine volcanic explosion on November 14, 1963, and continues to increase its surface area as the ongoing lava flows cool. There are also islands that appear intermittently.
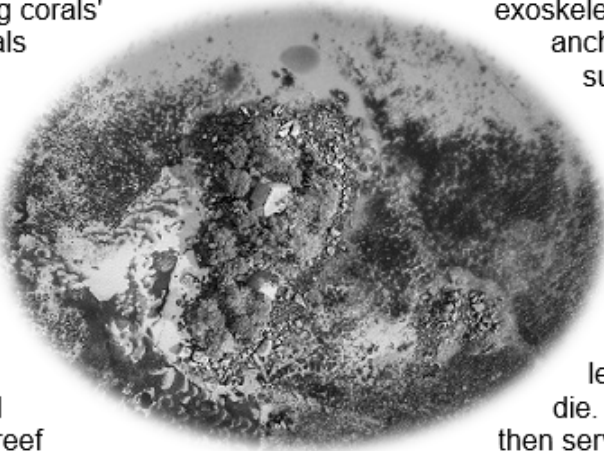>
> Because islands come and go, the number of islands in existence cannot be established except in relation to a proscribed time period – a human generation, or a century or two. With the discovery of some islands in the Russian Arctic in the mid-twentieth century, however, it is thought that no islands remain to be discovered in our time. Satellite and ship-based scanning equipment is now being used to search for islands whose positions appear on nautical maps but which have themselves disappeared, and to identify underwater sites of new island formation.

(3)

1.6 Find the paragraph below the heading 'Coral Islands'. Insert the **1Seychelles** image and apply a picture style to resemble the example below.

NOTE: The position of the image is in line with the text 'calmness, and' at the top and 'sediment,' at the bottom. (4)

1.7 Insert an endnote <u>on</u> the green highlighted text 'Magma' found on the last page, as follows:

- Set the endnote numbering format to uppercase Roman numerals.
- Add the text 'Dangerous' to the endnote. (2)

1.8 Edit the reference source for the author 'Tarbuck' to include the following bibliographical fields:

- City: New Jersey
- Comments: Island Structure (2)

1.9 Edit the citation found on the last page to display only the author's name, year published and pages 130–140. (2)

1.10 Replace the exact word 'Island' with the symbol ⚓ (Webdings: Character code: 74). (3)

Save and close the **1Types** document. **[22]**

QUESTION 2: WORD PROCESSING

Open the **2Top10** word processing document that contains information on the top ten islands and insert your examination number in the header.

2.1　　Change the cover page as follows:

- <u>Move</u> the information found on page 2 into the relevant content controls.
- Ensure that there are no blank pages or comments in the document.　　(3)

2.2　　Find the image below the heading '9. TASMANIA (AUSTRALIA)' and modify the image to match the other images in the document.　　(3)

2.3　　Find the heading '8. BALI (INDONESIA)' and create a link to the beginning of the document.　　(2)

2.4　　Change the orientation of <u>only the last page</u> to landscape.　　(2)

2.5　　Find the SmartArt graphic on the last page and modify it to appear as shown below.

　　　　NOTE: Ignore the colours of the SmartArt graphic.

(4)

　　　　　　　　　　　　　　　　　　　　　　　　Please turn over
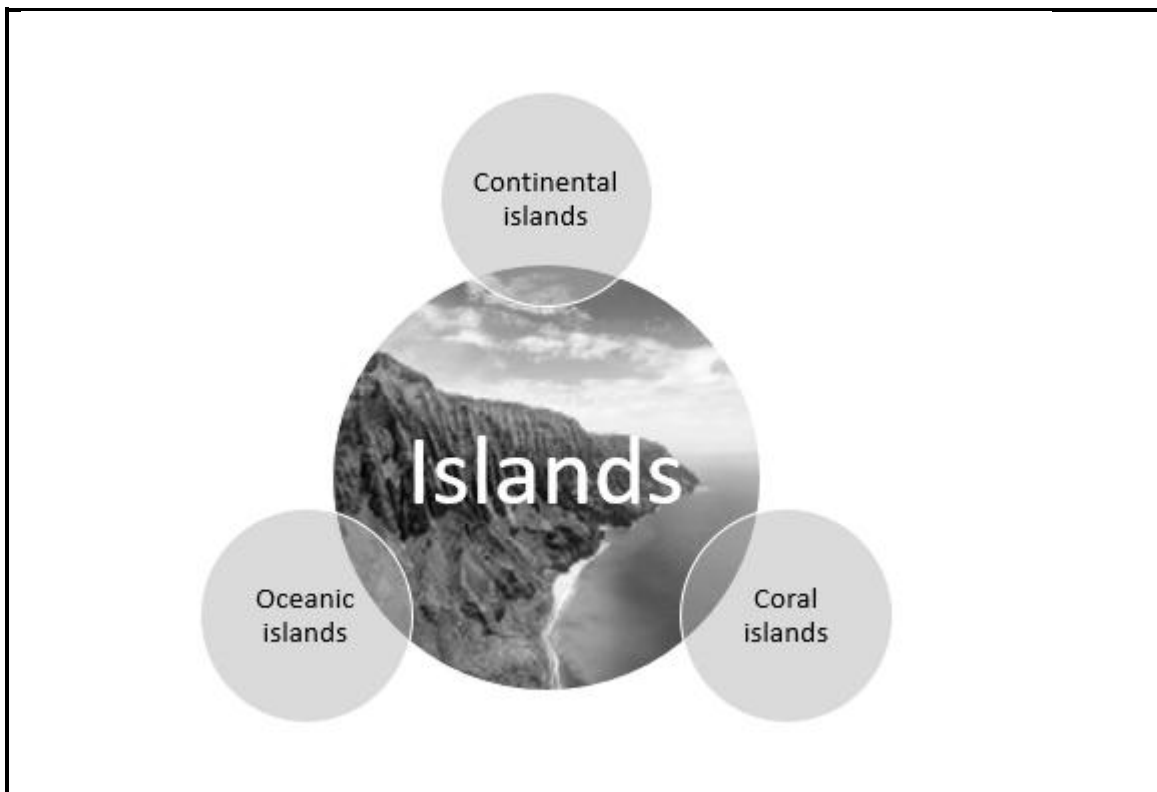
2.6   Replace the text 'Question 2.6' on the last page with a field to display the file name of this document in capital letters.   (2)

2.7   Insert automatic page numbering in the footer of each page as follows:

- Page numbering must start on the <u>third page</u> with page number 1.

- Even pages must be left-aligned.

- Odd pages must be right-aligned.

- The first two pages must not be numbered.   (5)

Save and close the **2Top10** document.

Work with the **2Confidential** file.

2.8   Unzip the file with the password **1234** and insert any 'Confidential' watermark in the document.   (2)

Save and close the **2Confidential** document.   **[23]**

QUESTION 3: SPREADSHEET

NOTE:

- Use formulae and/or functions for ALL calculations in the spreadsheet.
- Use absolute cell references ONLY where necessary to ensure that formulae are correct when you copy it to other cells in a spreadsheet.
- Insert formulae and/or functions in such a manner that the correct results will still be obtained even if changes are made to the existing data.
- Should you need to use building blocks, use the space allocated for this in the data file.

Open the **3Population** spreadsheet that contains the population and area of islands around the world.

Work in the **Islands** worksheet.

3.1   Change the column width of **column B** to 40 pt and apply text wrapping to **cells B8:B55**. (2)

3.2   Insert a function in **cell C3** to display the average population (**column E**). (2)

3.3   Insert a function in **cell C4** to display the number of islands where the word 'part' appears in the description of the Formation in **column B**. (4)

3.4   Insert a SUMIFS function in **cell C5** to display the total population (**column E**) for all oceanic type islands (**column C**) with an area larger than 1 000 km^2 (**column D**). (5)

3.5   Apply conditional formatting to Area (km^2) (**column D**), using the 3 Flags icon set as follows:

Flag colour	Area km^2
Green	Greater than and equal to 280 000
Orange	30 001–279 999
Red	0–30 000

(4)

3.6   Insert a formula in **cell F9** to display the population per km^2 for the Bahamas. Use the area (km^2) in **column D** and the population in **column E**.

Format the answer to display NO decimal places. (3)

Work in the **Polynesia** worksheet.

3.7   Format the chart/graph to display as shown below.
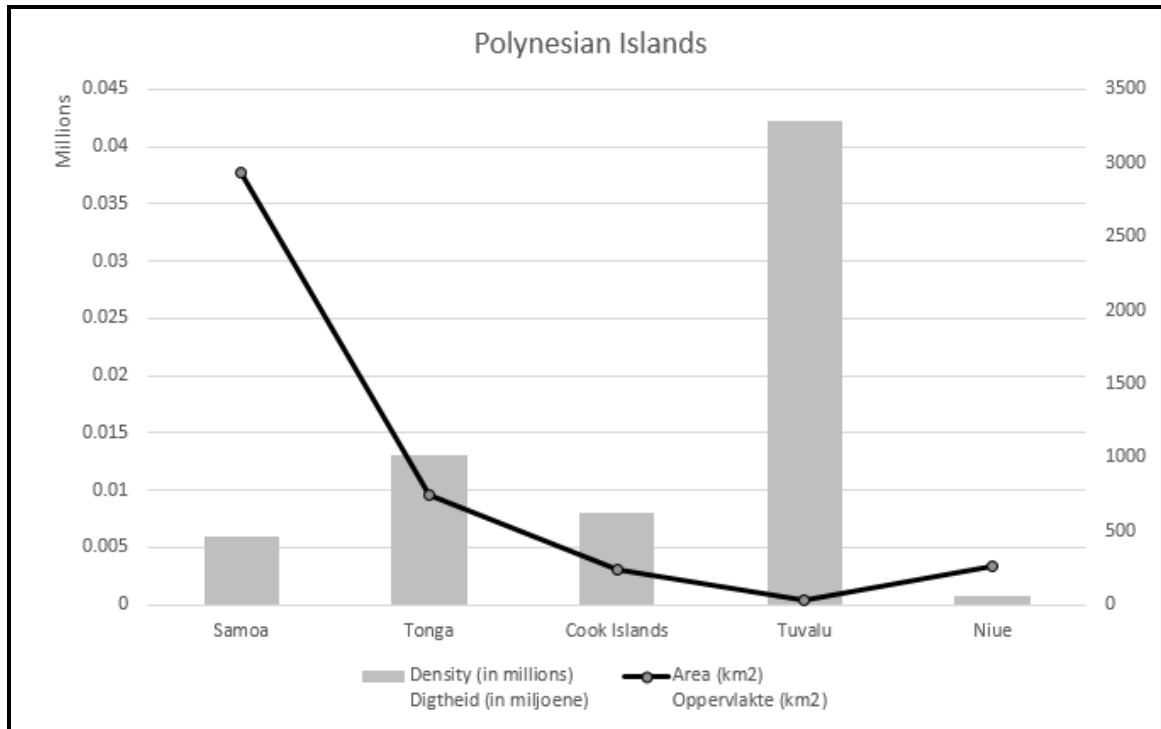
NOTE:

- Chart/Graph type of the *Density (in millions) Digtheid (in miljoene)* series
- *Area (km2) Oppervlakte (km2)* series is plotted on a secondary axis
- Primary vertical axis displays in units
- The display of the legends   (5)

Save and close the **3Population** spreadsheet.   **[25]**

QUESTION 4: SPREADSHEET

NOTE:

- Use formulae and/or functions for ALL calculations in the spreadsheet.
- Use absolute cell references ONLY where necessary to ensure that formulae are correct when you copy it to other cells in a spreadsheet.
- Insert formulae and/or functions in such a manner that the correct results will still be obtained even if changes are made to the existing data.
- Should you need to use building blocks, use the space allocated for this in the data file.

Open the **4Bookings** spreadsheet which contains data about travellers to various islands.

Work in the **Travellers** worksheet.

4.1	Insert the **4Logo** image as the background of the worksheet.	(1)
4.2	Modify the spreadsheet so that the gridlines do not show.	(1)
4.3	The name and surname of a traveller is stored in **column A**.	
	Insert a combination of text functions in **column B** to extract the traveller's surname from **column A**.	
	NOTE: You may assume that a traveller only has ONE first name.	(5)
4.4	The **Cost** worksheet stores the daily accommodation cost per person based on their travel style, i.e. Budget, Mid-Range or Luxury.	
	Insert a suitable LOOKUP function in **cell I15** to determine the cost per person for Necker Island.	
	Use 'Necker Island' (**cell F15**) as the lookup value, the travel style code in **column H** AND the table in the **Cost** worksheet.	(5)

Work in the **Style** worksheet.

4.5	Use the subtotal feature to display the highest group cost (**column C**) for each travel style (**column B**).	(3)

Save and close the **4Bookings** spreadsheet. **[15]**

QUESTION 5: DATABASE

A travel agent keeps details regarding its tour guides, clients and tours in a database.

Open the **5Details** database containing information about the tour guides.

5.1　　Open the **tbl5_1** table in Design View.

5.1.1　Change the field size for the *Name* field to 20.　(1)

5.1.2　Insert an appropriate validation rule for the *StartDate* field that matches the validation text.　(2)

5.1.3　Create an input mask for the *AccessCode* in the following format:

- TWO compulsory letters, followed by
- The @ sign, followed by
- At least THREE, but possibly FOUR digits　(4)

5.1.4　Create a combo box for the *Position* field with the following options:

- Manager
- Administrator
- Accountant　(3)

5.1.5　Insert a new field called *IDPhoto* and set an appropriate data type for the field.　(2)

Save and close the **tbl5_1** table.

NOTE: TblData stores information about travellers to the various islands.

5.2   Open the form called **frm5_2**, based on the **tblData** table, in Design View.

Modify the form to display as shown in the example below.

NOTE:

- Place a rectangle control as a border around the four fields, as shown above.
- Insert the current date in the footer of the form in the same format as shown above.
- Insert a button control to go to the next record when the button is clicked. Accept the default arrow on the button.

Save and close the **frm5_2** form.   (5)

5.3 The **qry5_3** query is based on the **tblData** table. Open the query in Design View and change the query to display the following:

DestinationIsland	SumOfLeisureCost
Bora Bora Island	R12 995.00
Calivigny Island	R1 988.00
Cayo Espanto	R6 067.00
Cerralvo Island	R8 316.00
Cocoa Island	R20 051.00
Cyprus	R4 878.00
Fogo Island	R4 440.00
Fregate Island	R4 364.00
Galapagos Islands	R7 033.00
Lanai Island	R8 568.00
Laucala Island	R5 747.00
Moorea Island	R3 785.00
Musha Cay	R9 917.00
Mustique Island	R1 640.00
Necker Island	R4 775.00
Rang Yai Island	R1 752.00

Save and close the **qry5_3** query. (3)

5.4 Create a query called **qry5_4**, based on the **tblData** table.

- Display only the *Name*, *Surname*, *DateOfBirth* and *DestinationIsland* fields.
- Include only those travellers going to Bora Bora Island or Cyprus for a fishing holiday.
- Display the *Surname* field in alphabetical order.

Save and close the **qry5_4** query. (7)

5.5 Open the **qry5_5** query, based on the **tblData** table in Design View.

Insert a calculated field called *60&Older* to display ONLY the travellers who are 60 years and older.

Save and close the **qry5_5** query. (5)

5.6   Open the **rpt5_6** report, based on the **tblData** table, in Design View and change it as follows:

- Correct the display of the amounts in the *TotalLeisureCost* field so that the values are fully visible.
- Insert a function/calculation to display the average cost per leisure activity.   (3)

Save and close the **rpt5_6** report.

Save and close the **5Details** database.   **[35]**

QUESTION 6: 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.
- All files needed to complete this question can be found in the data folder.

6.1   A web page was created to give people travel information on Mauritius.

Open the incomplete **6_1Win** file in a web browser and also in a text/HTML editor.

WIN A TRIP TO MAURITIUS!

Click here to enter

About Mauritius

Mauritius, a tropical island paradise, is one of the world's top luxury tourist destinations. It possesses a wide range of natural and man-made attractions, enjoys a tropical climate with clear warm sea water, attractive beaches, tropical fauna and flora. It is complemented by a multi-ethnic and cultural population that is friendly and welcoming. These tourism assets are its main strength, especially since they are backed up by well-designed hotels, reliable services and a good infrastructure. Mauritius received the Leading Island Destination Award for the third time, as well as the Best Beach Award, at the World Travel Awards in January!

Fun things to do

1. Visit Port Louis
2. Try deep-sea fishing
3. Head to Caudan Waterfront
4. Shop at Chinatown

NOTE:

- Use the example on the previous page as a guide when answering this question.
- Question numbers appear as comments in the coding to indicate where you should insert the answer(s). DO NOT delete these comments.

6.1.1 Modify the HTML code so that the document displays in the Tempus Sans ITC font, as shown in the example on the previous page. (1)

6.1.2 Insert a black horizontal line with a size of 5 below the image. (3)

6.1.3 Link the **6_1Button** image to the web address found at the end of the document so that the website opens when the button is clicked. (2)

6.1.4 Insert the text that appears in the example on the previous page but was left out in the web page as a level 3 heading. (2)

6.1.5 Modify the list at the bottom of the web page so that the list appears as shown in the example on the previous page. (2)

Save and close the **6_1Win** file.

6.2 Open the incomplete **6_2Expensive** web page in a web browser and also in a text/HTML editor (**NOT a word processing program such as Word**).

Complete the web page to look exactly as shown in the example below.

(4)

Save and close the **6_2Expensive** file.

ONE mark will be allocated for closing tags and correct nesting in both the files. (1)

[15]

QUESTION 7: GENERAL

7.1   Open the **7Discount** spreadsheet.

         Work in the **Code** worksheet.

7.1.1   The travel company has decided to give some of their travellers a
           pensioner's discount if their year of birth is before 1960 (**column B**).
           The travel style (**column C**) will determine the discount code that a
           pensioner will receive.

           Use a nested IF function or a formula in **cell D2** to display the following
           values:

           - 5 if the traveller is a pensioner and has a mid-range travel style OR
           - 4 if the traveller is a pensioner and has a luxury travel style OR
           - 0 for all other travellers   (6)

         Work in the **List** worksheet.

7.1.2   Filter the worksheet to display the records of the travellers born in the
           first three months of 1979.   (3)

         Save and close the **7Discount** spreadsheet.

7.2   Luxury style travellers will each receive a VIP ticket.

Open the **7Card** file and choose 'Yes' in the dialog box to continue the mail merge.

In the data source dialog, select the **7Entrance** file in your data folder.

- Edit the recipient list to ensure that only Luxury travellers will get VIP cards.
- Replace the text on the label with the appropriate merge fields.
- Update the labels to display as the example below.
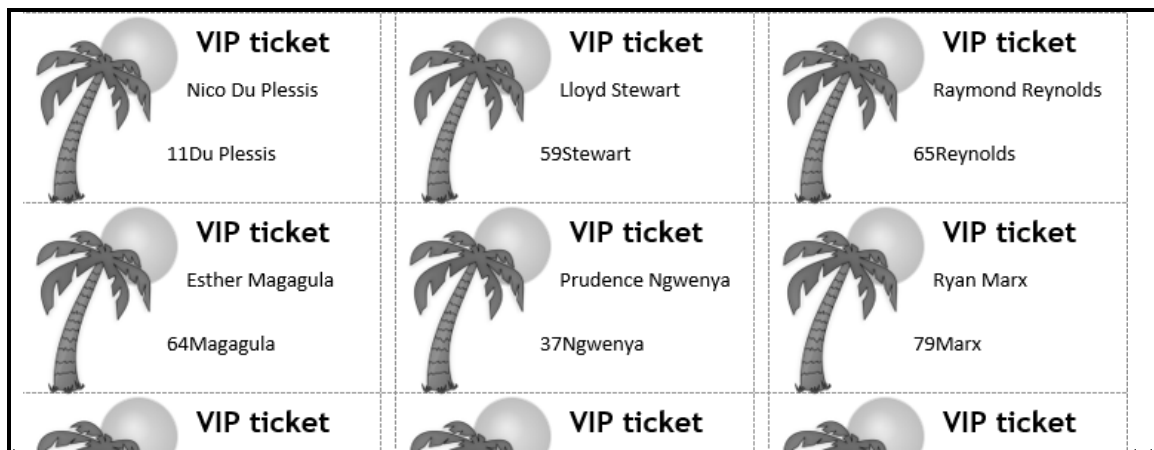
Complete the mail merge and save the file as **7MergedCard**.   (6)

Save and close the **7Card** and **7MergedCard** documents.   **[15]**

                              TOTAL: **150**

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**
	Creates the largest heading
	Creates the smallest heading
	Creates bold text
<i></i>	Creates italic text
<u></u>	Creates underlined text
	Sets size of font, from "1" to "7"
 	Sets font colour
	Sets font type

Links Tags	
Tag	**Description**
	Creates a hyperlink
<img src="name">	Creates an image link
	Creates a target location in the document
	Links to a target location created somewhere else in the document
	Links to an e-mail address

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

Formatting Tags continued	
Tag	**Description**
	Inserted before each list item, and adds a number or symbol depending on the type of list selected
<img src="name">	Adds an image
<img src="name" align="left">	Aligns an image: can be "right", "bottom", "top"
<img src="name">	Aligns an image in the "center", can also be "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
	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

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
!	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 mark anywhere in the input mask.
\	Causes the character that follows to be displayed as the literal character (e.g. \A is displayed as just A)

YOU MAY USE THIS PAGE FOR ANY PLANNING PURPOSES.

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	Examination sticker	150

COMPUTER APPLICATIONS TECHNOLOGY P1 – 2022

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 2013	Microsoft Office 2016	Microsoft Office 2019	Office 365/Office 2021	
WEB BROWSER USED (Mark appropriate box with a cross (**X**))	Mozilla Firefox	Google Chrome	Internet Explorer	Microsoft Edge	Other (Specify)

FOLDER NAME _____

Candidate must enter the file name(s) for each answer. Tick if saved and/or attempted.

Question Number	File name	Saved (✓)	Attempted (✓)	Maximum Mark	Mark Achieved	Marker Initial/ Code
1	1Types			**22**		
2	2Confidential			**23**		
	2Top10					
3	3Population			**25**		
4	4Bookings			**15**		
5	5Details			**35**		
6	6_1Win			**15**		
	6_2Expensive					
7	7Card			**15**		
	7Discount					
	7MergedCard					
TOTAL				**150**		

Comment *(For office/marker use only)*

_____

_____