



COMPUTER APPLICATIONS TECHNOLOGY: PAPER II

Time: 3 hours

180 marks

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. This question paper consists of 12 pages and an insert (HTML Tag List and Input Mask Character Sheet) of 2 pages. Please check that your question paper is complete.
2. You may only use a text editor for the HTML section, namely Notepad, Notepad++ or WordPad.
3. You must answer ALL the questions. Please read the entire question before attempting a solution. Do not do more than is required by the question.
4. Take note of the mark allocation to ascertain the complexity of the solution required and the amount of time to spend on each question.
5. Save your work regularly.
6. If a formula/function such as a complicated *if* statement does not work, indicate the question number, give a brief explanation, and paste a screenshot of the spreadsheet or database into the **Screenshots** document to obtain part marks; you may then leave it out of the spreadsheet or database solution.
7. Make a backup copy of all database files **before** you start your examination.
8. All word-processing documents should be set up as follows (unless other instructions are given)
 - The default for measuring units – centimetres (cm)
 - Language – English (South Africa)
 - Page size – A4
 - Margins – 2,54 cm
9. Note that you may use the *offline* help function available in each application.
10. Figures in the question paper have a border. When a figure is provided as part of a question, you are not expected to add the border unless specifically instructed to do so.

11. All data files listed in Instruction 12 can be found on the network drive that has been allocated for this examination. Please note that all solutions must be saved to your examination folder on this network drive.
12. You have been supplied with an examination folder called **LearnerFiles**. Refer to **Figure 1** below and check that the following folders and files exist in **LearnerFiles**:

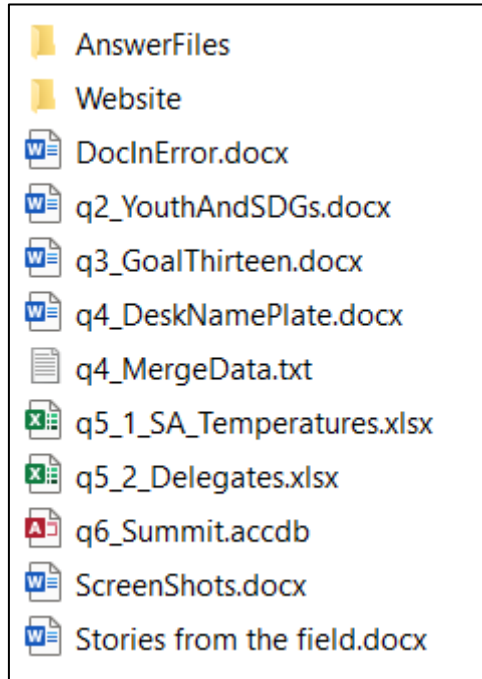


Figure 1

The **AnswerFiles** folder contains one file. Refer to **Figure 2** below.



Figure 2

The **Website** folder contains two files and one subfolder. Refer to **Figure 3** below.

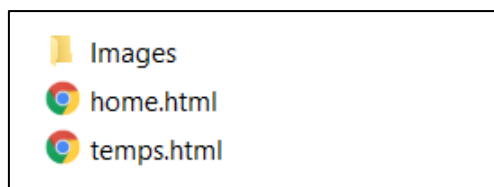


Figure 3

The **Images** subfolder within the **Website** folder contains three files. Refer to **Figure 4** below.



Figure 4

Read the scenario below that describes the background to the practical tasks you are required to perform.

SCENARIO

The Environment and the Computer Clubs at your school have teamed up in a project aimed at raising awareness of the Sustainable Development Goals (SDGs) and the role of the youth in the engagement on global development. Of particular concern with the two clubs are gender equality, education, climate change and what the youth can contribute today to sensitise people and help curb the decline in climatic conditions.

As the secretary of the computer club, your role is to help in the development of various types of documents.

QUESTION 1 FILE AND FOLDER MANAGEMENT

- 1.1 In the examination folder, create a subfolder and rename it to your examination number. (1)
- 1.2 Add the comment "*Close the gender digital divide!*" to the properties of the Word document called **Stories from the field.docx**. (1)
- 1.3 Locate the file called **DocInError.docx** and delete it. (1)
- 1.4 A member of the Environment Club has accidentally deleted a file in the **Documents** folder. Give the steps that the member can follow in order to recover the deleted file. Type your answer in the space provided in **q1_AnswerFile.docx**. (3)
- 1.5 A file has been sent to a printer that is offline and has, therefore, not been printed. Give the steps you must follow to delete it from the printer queue. Type your answer in the space provided in **q1_AnswerFile.docx**. (4)
- 1.6 Windows 10 is notorious for updates that might affect the normal functioning of a computer. After a recent update to the laptop that you are using, you discover that you can no longer save to the **Documents** folder. What steps must you follow to undo the most recent Windows updates? Type your answer in the space provided in **q1_AnswerFile.docx**. (5)
- 1.7 List all the Excel files in the examination folder. Take a screen shot clearly showing the search words and/or criteria used as well as the results of the search. Save the screenshot in the space provided in **q1_AnswerFile.docx**. (3)
- 1.8 Insert your examination number in the header of the file **q1_AnswerFile.docx**. Save and close the file. (1)

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QUESTION 2 WORD PROCESSING

A document called **q2_YouthAndSDGs.docx** has been prepared to explain the role of the youth in the Sustainable Development Goals agenda. Open the document and save it as **q2_YouthAndSDGs-YourExaminationNumber.docx** in the folder called **AnswerFiles**.

- 2.1 Format the header and footer as follows:
 - 2.1.1 Add the centred page numbering *X of Y* to the header. (2)
 - 2.1.2 Insert the automated file path in the footer aligned to the right. (2)
- 2.2 Format the image as follows:
 - 2.2.1 Set the text to wrap tightly around the image. (2)
 - 2.2.2 Resize the image so that it is exactly 8 cm wide by 8 cm high. (2)
 - 2.2.3 Rotate the image by 45 degrees counterclockwise. (2)
- 2.3 Format the text as follows:
 - 2.3.1 Add a drop cap to the first letter of the word "Today" in the first paragraph. Ensure that the cap drops down five lines. (2)
 - 2.3.2 Set the alignment of the whole document to justified and set the font to Comic Sans MS. (2)
- 2.4 Find all instances of the word "roll" and replace them with the word "role". (2)
- 2.5 Locate the heading "Roles for youth and the SDGs" and perform the following modifications to the text between it and the heading "Youth campaigns":

Apply a multilevel numbered list to the text. The multi-level list must appear as shown below:

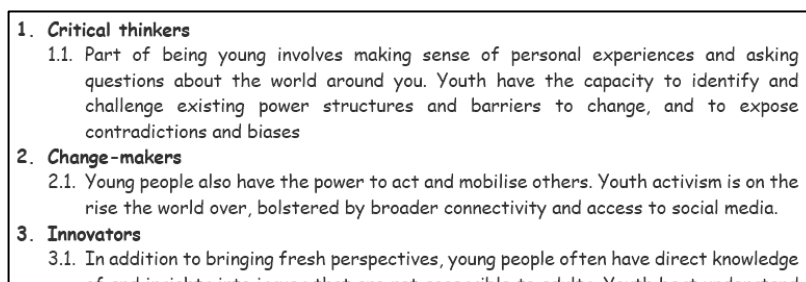


Figure 5

- 2.6 Locate the word "Source" at the end in the document and add the link <https://www.un.org/sustainabledevelopment/youth/> as a footnote to it. (2)

Add your examination number aligned to the left in the header of the document and save the file **q2_YouthAndSDGs-YourExaminationNumber.docx**.

QUESTION 3 WORD PROCESSING

You must publish a document on Sustainable Development Goal Number 13: Climate Action. Open the document called **q3_GoalThirteen.docx** and save it as **q3_GoalThirteen-YourExaminationNumber.docx** in the folder called **AnswerFiles**. Insert your examination number in the header of the document and then perform the following tasks.

- 3.1 Activate track changes. (1)
- 3.2 Modify all the text on pages 2 and 3 as follows:
- 3.2.1 Change the paragraph spacing to 12 pt before and after the paragraph. (3)
- 3.2.2 Change the line spacing to Multiple 1.75 pt. (2)
- 3.2.3 Activate the Orphan/Widow Control and set to keep lines together. (2)
- 3.3 Apply a 3 cm hanging indent to the text under the paragraph subtitled "Why?". (2)
- 3.4 Locate the text "Act now!" and add a bookmark named "Act" here. (2)
- 3.5 Locate the text "Click **here** to read more about the UN's efforts on climate change" near the end of the document and add the following hyperlink to the word '**here**':
- <https://www.un.org/en/climatechange>. (3)
- 3.6 Add an automatic table of contents at the start of page two. (2)
- 3.7 Set the track changes mark-up to show only insertions and deletions. (1)
- Save and close the document **q3_GoalThirteen-YourExaminationNumber.docx**.

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QUESTION 4 MAIL MERGE

A meeting of all members, volunteers and partners has been called and, to facilitate the identification of the people attending the meeting, each member must have a desk name plate. Open the document called **q4_DeskNamePlate.docx** and save it as **q4_DeskNamePlate-YourExamNumber.docx** in the folder called **AnswerFiles**. Insert your examination number in the header of the document and then perform the following tasks.

Process the merge as follows:

- 4.1 Use the text document called **q4_MergeData.txt** as the data source. (1)
- 4.2 Sort the data by Organisation and then by Surname both in descending order. (2)
- 4.3 Filter the data so that it excludes members of the Environment Club and Computer Club from the merge. (2)
- 4.4 Insert the relevant merge fields in place of <<NAME>> <<SURNAME>> and <<ORGANISATION>>. (2)
- 4.5 Finish and merge the document so that you can edit individual documents. Save the resultant document as **q4_Merged.docx** in the folder called **AnswerFiles**. (2)

Save and close the document **q4_DeskNamePlate-YourExamNumber.docx**.

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QUESTION 5 SPREADSHEETS

The Thirteenth Sustainable Development Goal is Climate Action. It is imperative that we act now to achieve the goal of limiting global warming to under 2 °C or even to just 1.5 °C. In order to do this, and among other things, we need to acknowledge the current trends in temperatures across the country. Open the Excel document called **q5_1_SA_Temperatures.xlsx** which contains average temperatures for selected cities/towns in South Africa and save it as **q5_1_SA_Temperatures-YourExamNumber.xlsx** in the folder called **AnswerFiles**.

Note that the spreadsheet contains only one worksheet called *Data*.

5.1 Prepare the spreadsheet for publication as directed below.

- 5.1.1 Add the current date to the right in the header. (1)
- 5.1.2 Format the text in range **A1:B2** so that it appears over two lines. (1)
- 5.1.3 Format the range **A1:F21** so that all the text is centred vertically. (1)
- 5.1.4 Add borders to the cells in the table as follows:
- (a) All the borders must be red. (1)
 - (b) All the borders must be dotted lines. (1)
- 5.1.5 Apply a fill colour using the RGB values (50, 120, 120) to the range **A1:F2**. (2)
- 5.1.6 Filter the data by province and ensure that only the cities of the Eastern Cape are visible. Ensure that the range **A1:F2** is still visible after the filter has been applied. (2)
- 5.1.7 Prepare the spreadsheet for printing as follows:
- (a) The margins should be 3 cm all-round. (2)
 - (b) Centre the data on the page both horizontally and vertically. (2)
 - (c) Edit the header and footer so that it has different odd and even pages. (1)
 - (d) Add a custom Odd Page Footer to display the file name. (2)
 - (e) Ensure that the row and column headings will be printed. (1)
- 5.1.8 Create a chart as follows:
- (a) Use only the filtered data to show the city, maximum summer and maximum winter temperatures. (3)
 - (b) The chart must be a 2D Clustered Column Chart. (2)
 - (c) Insert the chart title "Range per City." (1)
 - (d) Add a green border to the chart title. (2)

- (e) Set the minimum bound of the Y-axis to 10 and change the major unit to 5. (2)

Save and close the document **q5_1_SA_Temperatures-YourExamNumber.xlsx**.

5.2 An indaba has been called and stakeholders from different organisations attend to discuss the South African challenges related to, among other things, inequality, climate change and education. Open the spreadsheet called **q5_2_Delegates.xlsx** and save it as **q5_2_Delegates-YourExamNumber.xlsx**. Note that the spreadsheet contains the following worksheets and data:

- *BioData* – a list of the delegates attending the indaba.
- *Pledges* – a summary of what each delegate or company pledges towards attaining sustainability in South Africa and further afield.
- *ClimateChangeAction* – a table detailing the codes and actions for fighting against climate change.

Note that the following questions apply to the *BioData* worksheet.

5.2.1 In cell **A2**, the name and surname of the delegate have been entered in the same cell. Use appropriate function(s) in cell **B2** to determine the first name of the delegate in cell **A2**. Copy the function to the range **B3:B47**. (5)

5.2.2 In cell **E2**, the cellphone number of the delegate has been entered in such a way that the leading zero has disappeared rendering the cellphone number incorrect. Apply an appropriate function in cell **F2** to restore the leading zero. Copy the function to the range **F3:F47**. (3)

5.2.3 Name the range **B1:F47** "DelegatesBioData". (2)

Note that all the changes below must be applied to the worksheet labelled *Pledges*.

5.2.4 Each organisation has made a pledge at the indaba of an action aimed at fighting climate change. The pledged action is denoted by a code given in the range **B2:B21**. Apply an appropriate function in cell **C2** to determine the actual action to be taken by each company. Use the data in the worksheet called *ClimateChangeAction*. Copy the function to the range **C3:C21**. (4)

5.2.5 Use a function or formula in cell **B23** to determine the number of companies that have pledged to optimize employees' transportation – an action denoted by the code "ET". (3)

5.2.6 Use conditional formatting to fill the cells containing the pledge codes named "RWFO" in column **B** with the colour green. (2)

5.2.7 Some of the delegates do not have an email address registered. In cell **B24**, use an appropriate function to determine how many delegates do not have an email address. (2)

Save and close the document **q5_2_Delegates-YourExamNumber.xlsx**.

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QUESTION 6 DATABASES

You have been tasked with maintaining records of the participants at the indaba and to track and analyse data coming out of the meeting. To do this, a database called **q6_Summit.accdb** has been set up. Create a copy of this database called **q6_Summit-YourExamNumber.accdb** in the folder called **AnswerFiles**. Use this database to complete the following tasks.

- 6.1 The following changes must be applied to the table called *tblDelegates*.
- 6.1.1 The field called CELL NUMBER has been erroneously made a primary key. Change this so that only the DELEGATE ID field remains as a primary key. (2)
 - 6.1.2 Create a combo box for the field ORGANISATION that looks up values from the table called *tblOrganisations*. (3)
 - 6.1.3 Add a validation rule to the field EMAIL ADDRESS to ensure that an email address entered will always have the "@" sign included in the email address. (2)
 - 6.1.4 Add an appropriate error message to be displayed should a user enter invalid data into the field EMAIL ADDRESS. (1)
 - 6.1.5 Add an input mask to the field CELL NUMBER to ensure that a number with 10 digits must be entered. Use "#" as a place holder. Save the changes. (3)
- 6.2 The following change must be applied to the table called *tblPledge*.
- Change the table's alternate background colour to green. Save the changes. (1)
- 6.3 The following change must be applied to the table called *tblAction*.
- Change the length of the field called Action to 100. Save the changes. (1)
- 6.4 Export the data in the table called *tblAction* to a comma-separated values (CSV) file. Include the field names on the first row. Save the file as **Action-YourExamNumber.csv** in the folder called **AnswerFiles**. (3)
- 6.5 Create a form as follows:
- 6.5.1 Create a form called *frmOrganisations* using the field ORGN_NAME in the table *tblOrganisations* and the fields FIRSTNAME, SURNAME, EMAIL ADDRESS and CELL NUMBER from *tblDelegates*. Ensure that the form is grouped by the *tblOrganisation* table. (4)
 - 6.5.2 Change the text box control called ORGN_NAME in the form to a combo box control that looks up values from the ORGN_NAME field in *tblOrganisations*. (3)
 - 6.5.3 Change the header to "Delegates by Organisation". Ensure that the text appears on one line. (2)

- 6.5.4 Add a button to the form footer that will allow a user to add a new organisation. The button must have the caption "Add New Organisation". (3)
- 6.6 Create the following queries:
- 6.6.1 Create a query called *qry073* that will display all the delegates whose cell numbers start with "073". Display only the first names and surnames of the respective delegates. Sort the query in ascending order of surnames. (4)
- 6.6.2 Create a query called *qryMissingEmails* that will list the delegates who do not have email addresses recorded in the table called *tblDelegates*. Display only first name, surname and organisation of the delegates. (3)
- 6.7 Create a report as follows:
- 6.7.1 Create a report called *rptAttendanceReport* using the fields ORGANISATION, FIRSTNAME, SURNAME, EMAIL ADDRESS and the CELL NUMBER. Ensure that all the fields are clearly visible. (3)
- 6.7.2 Group the report by ORGANISATION. (1)
- 6.7.3 Insert a text box in the appropriate location that will determine the number of delegates per organisation. (3)
- 6.7.4 Add your examination number as a label in the report header. (2)
- Save and close the database and all its objects. [44]

QUESTION 7 HTML

The indaba must have a website to publish its work and plans for the future. In order to prepare the website for publication, follow the instructions given below.

Note that all the changes below must be applied to the page called **home.html** in the **Website** folder.

- 7.1 Change the background colour of the page to the hex value #90EE90. (2)
- 7.2 Insert a level 1 heading "The Sustainable Development Plan" at the top of the page. (2)
- 7.3 Centre the heading. (2)
- 7.4 Add an image as directed below:
 - 7.4.1 Add the image **SDGs.png** in the **Images** subfolder directly under the heading. (3)
 - 7.4.2 Align the image to the centre. (1)
 - 7.4.3 Add the alternative text "The 17 Goals". (1)
 - 7.4.4 Ensure that the image covers 50% of the window in terms of its width. (2)
- 7.5 Add a hyperlink to the text "SA Temperatures" to **temps.html**. (3)

Save and close the document **home.html**.

Note that all the changes below must be applied to the page called **temps.html** in the **Website** folder.

- 7.6 Change the font of the whole table to "Verdana". (2)
- 7.7 Underline the text "SA Temperatures". (2)
- 7.8 The first cell with the text "SA Temperatures" must span three rows. (2)

Your table should appear as shown below:

| | City | Max - Summer | Max - Winter |
|------------------------|--------------|--------------|--------------|
| <u>SA Temperatures</u> | Johannesburg | 26 | 20 |
| | CapeTown | 16 | 18 |

Figure 6

Save and close the document **temps.html**.

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Total marks: 180