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 (1–2). Please check that your question paper is complete.

2.   You may only use a text-based editor for the HTML section, namely Notepad, Notepad++, WordPad or Komodo text editor.

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*. In this folder are two subfolders. Refer to **Figure 1** below and check that the following folders and files exist in *LearnerFiles*:

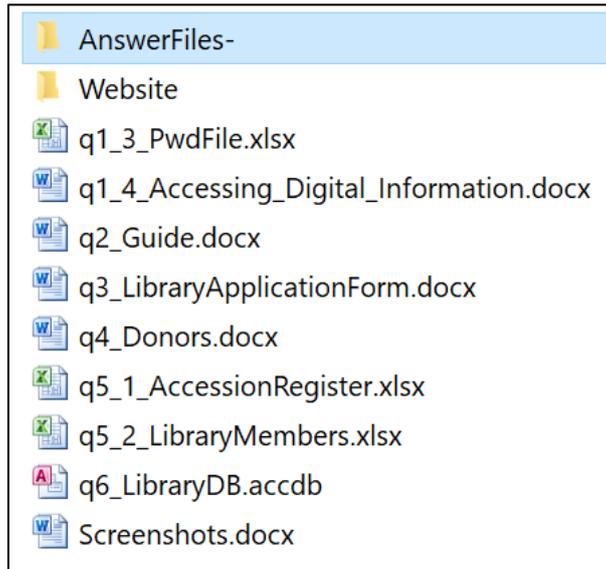**Figure 1**

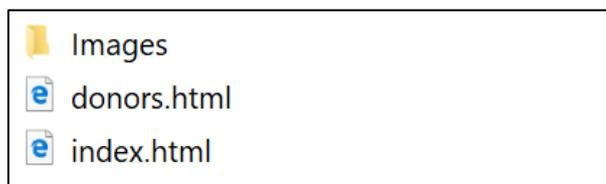The *Website* folder contains two files and one subfolder. Refer to **Figure 2** below.

Figure 2

The *Images* subfolder within the *Website* folder contains two files. Refer to **Figure 3** below.

Figure 3

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

SCENARIO

As part of your Life Orientation curriculum, you participate in outreach programs in local areas. Members of a nearby village have decided to start a community library to improve literacy levels amongst residents.

Some of the work that needs to be done includes maintenance of donated computer equipment and preparation of relevant documents including a library management database system and a website.

Using the knowledge you have gained in Computer Applications Technology, you are to assist the community by performing the following tasks:

QUESTION 1   FILE AND FOLDER MANAGEMENT

1.1   In the examination folder, rename the folder called ***AnswerFiles-*** by adding your Examination Number to the existing folder name.   (1)

1.2   **Copy** the file called **q6LibraryDb.accdb** to the folder called ***AnswerFiles-YourExaminationNumber***.   (1)

1.3   Locate the MS Excel file called **q1_3_PwdFile.xlsx** and remove the current password that is set as "123456". Save the file using the same file name in the folder called ***AnswerFiles-YourExaminationNumber***.   (1)

1.4   Locate the file called **q1_4_Accessing_Digital_Information.docx** and save it as a pdf in the folder called ***AnswerFiles-YourExaminationNumber***.   (2)

1.5   Insert your Examination Number in the header of the document called **q1_AnswerFile.docx**.   (1)

1.6   In the space provided in **q1_AnswerFile.docx** record the amount of disk space taken up by the file called **books.jpg** in the ***Images*** subfolder in the ***Website*** folder.   (1)

1.7   Take a screen shot of the device specifications of your computer and paste it in the space provided in **q1_AnswerFile.docx**.   (2)

1.8   Determine the speed of your computer's processor. Record your answer in the space provided in **q1_AnswerFile.docx**.   (1)

1.9   You notice that one of the computers you have been assigned to use has little disk space available. You decide to uninstall some unused applications. Give the steps you would take to uninstall an unwanted program. Type your answer in the space provided in **q1_AnswerFile.docx**.   (4)

1.10   Create a shortcut in the ***AnswerFiles-YourExaminationNumber*** folder that will open your HTML editor.   (3)

1.11   Save the file **q1_AnswerFile.docx** and edit its properties so that it is read-only.   (2)

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QUESTION 2   WORD PROCESSING

A guide to starting a community library has been typed into the document called **q2_Guide.docx**. Prepare the document for publication by doing the following:

2.1   Modify the header and footer as follows:

      2.1.1   Insert the current date in the header of the document.   (1)

      2.1.2   Centre the date in the header.   (1)

      2.1.3   Set the date to update automatically.   (1)

      2.1.4   Format the footer to "Blank (Three Columns)".   (1)

      2.1.5   Insert your examination number in the left of the footer.   (2)

      2.1.6   Insert page numbers using the plain text format in the right of the footer.   (2)

      2.1.7   Delete the content control in the centre of the footer.   (1)

2.2   Add an image as directed below:

      2.2.1   Use the image **books.jpg** in the Images subfolder in the *Website* folder.   (1)

      2.2.2   Insert the image at the start of the first paragraph.   (2)

      2.2.3   Set the text wrapping so that the image appears behind the text.   (2)

      2.2.4   Set the position of the image so that it is Top Centre relative to the margin.   (2)

2.3   Modify the Heading 1 style as follows:

      2.3.1   Change the font size to 18 pt.   (1)

      2.3.2   Change the font colour from automatic to any colour of your choice.   (1)

      2.3.3   Change the paragraph spacing to 6 pt before.   (1)

      2.3.4   Select all text formatted as Heading 2 and apply the style Heading 1 to the selected text.   (2)

Save the file as **q2_Guide-YourExamNumber.docx** in the folder called *AnswerFiles-YourExaminationNumber*.

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QUESTION 3   WORD PROCESSING

All members of the library must fill in an application form. Locate the file called **q3_LibraryApplicationForm.docx** and modify the document as follows.

3.1   Insert content controls as follows:

        3.1.1   Insert a Combo Box Content Control at the given 5 cm tab next to the "title" label.   (1)

        3.1.2   The combo box should provide the options Mr, Mrs, Ms, and Other.   (1)

        3.1.3   Insert appropriate Text Content Controls for the labels "Name" and "Surname".   (2)

3.2   Add a dotted outside border around the labels "Title", "Name" and "Surname" as well as their Content Controls.   (2)

3.3   Use the options "Learner/Student", "School Leaver", "Senior Citizen" and "Other" to create respective Check Box Content Controls. The check boxes must appear to the left of the labels.   (3)

3.4   Modify the layout of the Check Box Content Controls created in Question 3.3 so that they appear as two balanced columns while the rest of the document is a single column.   (3)

3.5   Insert a tab in line with the Donation/Registration Fee label as follows:

        3.5.1   The tab must be at 14 cm.   (1)

        3.5.2   The tab must be decimal aligned.   (1)

        3.5.3   The tab must have leader number 2.   (1)

3.6   Insert the text "R150.00" at the tab stop.   (1)

        Insert your Examination Number in the header of the document.

        Save the application form as **q3_LibraryApplicationForm-YourExaminationNumber.docx** in the folder called *AnswerFiles-YourExaminationNumber*.

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QUESTION 4   MAIL MERGE

Open the Word document called **q4_Donors.docx** and prepare the document as follows:

4.1   Activate track changes.   (1)

4.2   Merge the document as follows:

         4.2.1   Use the table called *tblDonor* in the database **q6_LibraryDB** as the
                 data source.   (1)

         4.2.2   During the mail merge process, sort the data in ascending order by
                 DonorSurname and then in descending order by DonorName.   (2)

         4.2.3   Replace the text <<Donor Name>>, <<Donor Surname>>, and
                 <<Email Address>> with the appropriate fields from the data source.   (3)

4.3   Insert a comment on the label "Email Address" that reads:

                          "All email addresses must be verified."   (2)

Save the merged document as **q4_DonorsMerged-YourExaminationNumber.docx**
in the folder called ***AnswerFiles-YourExaminationNumber***.

                                                                                                                          [9]

QUESTION 5   SPREADSHEETS

5.1   Open the spreadsheet called **q5_1_AccessionRegister.xlsx** and make the following changes:

      5.1.1   Insert your Examination Number in the middle of the footer.   (1)

      5.1.2   Apply the following changes to the range A1 to H1:

            (a)   Underline the headings with a double line.   (1)

            (b)   Change the font to bold.   (1)

            (c)   Change the row height to 30 points or 1.06 cm.   (1)

            (d)   Align all the text to the right.   (1)

            (e)   Align all the text so that it is centred between the top and the bottom of each cell.   (1)

      5.1.3   Sort the data by Author1 in ascending order and then by Title in descending order.   (4)

      5.1.4   Format cells H3 to H477 to currency with no symbol.   (2)

      5.1.5   Use conditional formatting for the cells in column H so that all items worth between R100 and R200 have a red fill.   (2)

      5.1.6   Prepare the document for printing as follows:

            (a)   Set the range A1 to H477 as the print area.   (2)

            (b)   Set Row 1 to repeat at the top of each page.   (2)

            (c)   Change the page size to any suitable size other than A4.   (1)

            (d)   Change the orientation of the page to landscape.   (1)

      Save the file as **q5_1_AccessionRegister-YourExaminationNumber.xlsx** in the folder called ***AnswerFiles-YourExaminationNumber***.

5.2   Open the spreadsheet called **q5_2_LibraryMembers.xlxs**. Note that the spreadsheet contains the following worksheets and data:

- *LibraryMembers* – a record of all members of the library
- *Stats* – a summary of statistics
- *FeeStructure* – a table with the respective fees per group
- *Sheet3* – a table with details of the source of the library items
- *GenderTable* – a list of the gender options available

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

5.2.1   Insert a comment in cell A1 with the text "Member ID".   (2)

5.2.2   Determine the MemberID in cell **A2** given that the MemberID is made up of the first three letters of the member's surname and day in the member's date of birth. Copy this formula to **A3:A127**. See the example given in Figure 4 below.

	A	B	C	D
1	MemberID	Surname	Name	DOB
2	Dla18	Dlamini	Maria	18/01/2003

Figure 4   (5)

5.2.3   Apply data validation to the cells **E2** to **E127** as follows:

(a)   Use the list in cells **A2** to **A4** in the worksheet called *GenderTable*.   (2)

(b)   Add a warning style error alert.   (1)

(c)   Add an appropriate error message.   (2)

5.2.4   Insert a calculation in cell **F2** to determine the amount payable by each member depending on the membership type. Use the data in the worksheet called *FeeStructure.* Autofill column **F** with this calculation.   (4)

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

5.2.5   In cell **B2**, use a spreadsheet function to determine the total number of females who are members of the library.   (4)

5.2.6   In cell **B3**, use a spreadsheet function to find the date of birth of the oldest member of the library.   (2)

Note that all the changes below must be applied to the worksheet labelled *Sheet3*.

5.2.7   Rename the worksheet to *ItemSources*.   (2)

     5.2.8 Create a chart in this worksheet as directed below:

         (a)   Use the data given in **A2:B5**.   (1)

         (b)   The chart type must be Doughnut Pie Chart.   (2)

         (c)   Add labels to the chart.   (1)

         (d)   Edit the chart title to read "Library Items' Sources." The title must appear at the top of the chart.   (1)

Save the file as **q5_2_LibraryMembers-YourExaminationNumber.xlsx** in the folder called ***AnswerFiles-YourExaminationNumber***.

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QUESTION 6   DATABASES

The database called **q6_LibraryDB.accdb** in the folder called ***AnswerFiles-YourExaminationNumber*** was developed to manage the library users and the items in the library. This database also handles borrowings and returns of the resources in the library.

Rename the database to **q6_LibraryDB-YourexaminationNumber.accdb**

6.1   All the changes below must be applied to the table called *tblBooks.*

      6.1.1 Set the <u>AccessionNumber</u> field as a primary key.   (1)

      6.1.2 Change the properties of the <u>Title</u> field as follows:

           (a)   The field cannot be left empty.   (1)

           (b)   The field must be indexed but allow duplicates.   (2)

      6.1.3 For the <u>Author1</u> field, create a combo box to look up values in the table called *tblAuthors.*   (3)

      6.1.4 Modify the <u>AcquisitionDate</u> field so that it displays as a long date.   (2)

      6.1.5 Change the data type of the <u>ItemCost</u> field so that it displays currency with *no* decimals.   (2)

6.2   The following changes must be applied to *tblBorrowingManager*.

      6.2.1 Modify the <u>BookID</u> field so that only books found in *tblBooks* can be issued using this database.   (3)

      6.2.2 Set the default value of the <u>DateBorrowed</u> field to the current date.   (2)

      6.2.3 Set the default value of the <u>DateToReturn</u> field to display a date 14 days from the date the book was issued. In the event that you encounter warnings, click "Yes" to continue and "Yes" again to test data with the new rules.   (2)

6.3   The following change must be applied to the field called <u>MemberID</u> in *tblLibraryMembers*.

      Create an input mask so that three letters, followed by two digits of which the second one is optional, must be entered.   (3)

6.4   Create a form as follows:

      6.4.1 Create a form based on *tblBorrowingManager* using all the fields available except the <u>LibraryMember</u> field. Use the datasheet layout. Save the form as *sfrmIssueDesk*.   (2)

   6.4.2   Open the *frmMemberDetails* in design view and make the following modifications:

   (a)   Change the title of the form to "Issue Desk".   (1)

   (b)   Change the back colour of the form header to automatic.   (1)

   (c)   Add a button in the detail section of the form to find a record. (2)

   (d)   Enlarge the detail section of the form to accommodate a subform. Add *sfrmIssueDesk* as an object in *frmMemberDetails* directly below the form fields.   (3)

   (e)   Adjust the size of the subform so that all the fields are visible. (1)

6.5   Create queries as follows:

   6.5.1   Create a query called *qryBooksNotReturned.* The query must display the member's name and surname and the titles of those books that have not yet been returned.   (4)

   6.5.2   Create a query called *qryFines* to calculate the overdue fines to be paid on each book that was returned after the due date. The fine is R10 per day that the book is overdue. The query must show only the member's name and surname as well as the amount due.   (4)

6.6   Create a report called *rptBorrowReport* that will display the following fields that could come from *tblLibraryMembers*, *tblBooks* or *tblBorrowingManager*:

   6.6.1   <u>MemberID</u>

   6.6.2   <u>Surname</u>

   6.6.3   <u>Name</u>

   6.6.4   <u>BookID</u>

   6.6.5   <u>Title</u>   (2)

6.7   Group the report by <u>MemberID</u>.   (1)

6.8   Insert a text box with an appropriate label and formula in the <u>MemberID</u> group footer to determine how many books each member has borrowed from the library.   (3)

Save and close the database **q6_LibraryDB-YourExaminationNumber.accdb**.

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QUESTION 7   HTML

A website to publicise the work of the community developing the library has been set up. However, it still needs some work to improve its appearance.

Follow the instructions given below to achieve this task assigned to you.

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

7.1   Insert title tags in the head tag.   (1)

7.2   Add your examination number as the title of the web page.   (1)

7.3   Insert the image **headerImage.jpg** in the *Images* subfolder as follows:

      7.3.1   Insert the image at the top of the page.   (2)

      7.3.2   Adjust it so that it has a width of 1 200 px.   (2)

7.4   Centralise the image, the horizontal lines and the text "Donors". See Figure 5 below.

Figure 5   (2)

7.5   Set a hyperlink for the text "Donors" to open the page called donors.html.   (2)

7.6   Change the font colour of all the text below the text "Donors" to any visible colour.   (2)

7.7   Modify the list given so that it is a bulleted list.   (3)

Save and close the HTML file **index.html**.

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

7.8   Modify the table so the that it has borders of 2 px.   (2)

7.9   Insert a table header with the text **"Contact Donors"** that spans three columns.   (2)

7.10 Set the background colour of the last row to the hex code #FFD700.   (2)

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Total: 180 marks