

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 of two pages (1–2). Please check that your question paper is complete.
2. You may use only 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. It is in your best interest to save 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 program.
7. It is recommended that you make a backup copy of all data files **before** you start your examination.
8. All word-processing documents should be set up as follows (unless other instructions are given):
 - default for measuring units – centimetre (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. Rename this folder to your examination number. Please note that all solutions must be saved to your examination folder on this network drive.

12. You have been supplied with three folders and eleven files in your examination folder. Refer to **Figure 1** below and check that the following folders and files exist in your examination folder:

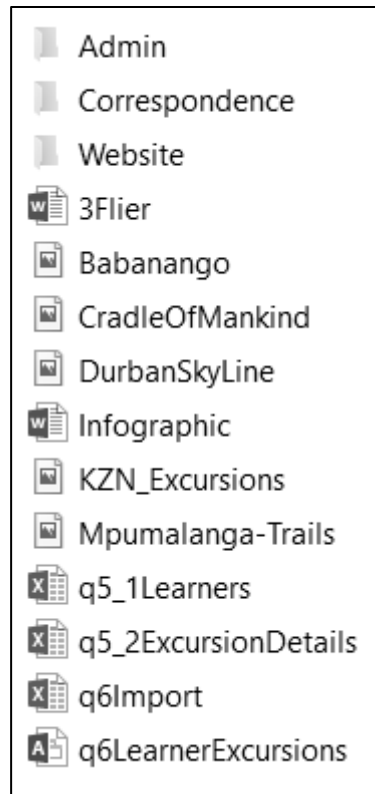


Figure 1

The **Admin** folder contains five files. Refer to **Figure 2** below.

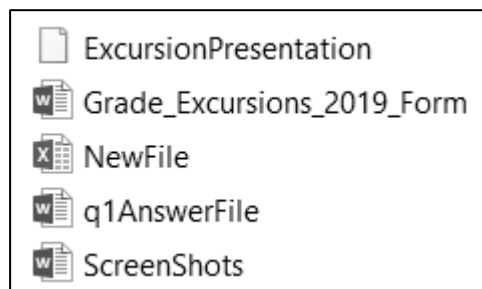


Figure 2

The **Correspondence** folder contains two files. Refer to **Figure 3** below.

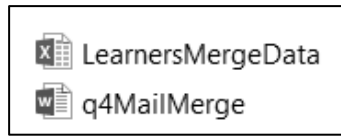


Figure 3

The **Website** folder contains two files. Refer to **Figure 4** below.

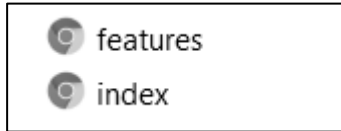


Figure 4

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

SCENARIO

Your school organises yearly grade excursions. Over the years you have noticed that the organisers struggle while preparing for the excursions. You have noted that the biggest challenge is the ICT element of the planning and running of the excursions.

You and some of your friends decide that you will offer your services to the school for a small fee. Having secured the contract, you embark on the preparations for the excursions by performing the following tasks.

QUESTION 1 File and Folder Management

Your first task is to reorganise the files and folders on the computer you have been given to use. Perform the following tasks.

- 1.1 Create a subfolder called **Images** in the **Website** folder. (2)
- 1.2 Move ALL the images in your examination folder to the newly created **Images** subfolder. (2)
- 1.3 Change the properties of the file called **ExcursionPresentation** in the **Admin** folder as follows:
 - 1.3.1 Set the author of the document to your examination number and save the file. (1)
 - 1.3.2 Change the attribute of the file so that it is read-only. (1)
 - 1.3.3 Compress the file **ExcursionPresentation**. Save the compressed file as **Q1-3Compressed** in the **Admin** folder. (1)
- 1.4 Change the name of the file called **NewFile** in the **Admin** folder to a more appropriate name linked to the contents of the file. (2)
- 1.5 You have forgotten the name of an important file in your examination folder, a file that contains the text "Zulu Culture". Find the file and take a screenshot that clearly shows the search results and the search words, and save it in the space provided in the file called **q1AnswerFile** in the **Admin** folder. (2)
- 1.6 The computer you are using to assist the school has no free disk storage space left. You decide to delete some unwanted files using Disk Cleanup. Write down the necessary steps to complete this task in the space provided in the file called **q1AnswerFile** in the **Admin** folder. (3)

- 1.7 You find a folder called **backup** on the desktop. It contains a copy of all the files in the **Documents** folder on the computer. Write down the appropriate steps to back up the **Documents** folder to an appropriate storage medium in the space provided in the file called **q1AnswerFile**. (4)
- 1.8 One of the tasks you have been assigned is to edit the webpages that advertise the grade excursions. With the aid of a screenshot, explain how you would open the **index.html** file in the **Website** folder to edit it. Write your answer in the space provided in the file called **q1AnswerFile**. (2)
- [20]**

QUESTION 2 Word Processing

Edit the form **Grade_Excursions_2019_Form** in the **Admin** folder as indicated below.

- 2.1 Centre the heading "*Grade Excursions 2019*" and the subheading "*Entry Form*". (1)
- 2.2 The form needs to make provision for the capturing of a name and surname.
- 2.2.1 Insert text content controls for the name and surname, where indicated. (2)
- 2.2.2 Insert tab stops at 4 cm for the name control and at 16 cm for the surname control. Do not change the 13 cm tab stop. (2)
- 2.3 Insert two check boxes for the gender field (Male and Female) and add appropriate labels. The check boxes must be tab aligned with the previous row. (2)
- 2.4 Insert a date picker content control for the date of birth, where indicated. (2)
- 2.5 Insert a combo box for the excursion, where indicated. The options that users can select for their choice of excursion should be:
- Cape
Garden Route
Mpumalanga & Limpopo
Gauteng
KwaZulu-Natal
Magaliesberg Adventure and Leadership (2)
- 2.6 Insert a green dotted-line page border. (2)
- 2.7 In the centre of the footer area, insert today's date and ensure that it updates automatically when the document is opened. (3)
- 2.8 Insert your exam number in the header of the form and save the form. (1)
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QUESTION 4 Mail Merge

You have been asked to prepare an ID label for every learner. Open the Word document called **q4MailMerge** in the **Correspondence** folder. It does not contain anything but will be used to generate the labels.

4.1 Merge the document as follows:

4.1.1 Prepare a label for each learner. The labels must be from the Tower vendor and you must use the Product Number: Tower W110 Mailing Label. Ensure that there are eight labels vertically and three across. You may adjust the dimensions of the label if necessary. (2)

4.1.2 Use the file called **LearnersMergeData** in the **Correspondence** folder as the data source. (2)

4.1.3 Sort the data in ascending order according to the EXCURSION, then GRADE from Grade 12 to Grade 8 and finally by SURNAME. (3)

4.1.4 Insert the fields for NAME followed by a space, SURNAME, GRADE and the EXCURSION in which each learner is participating into the label. Each label must appear as shown in **Figure 5**:

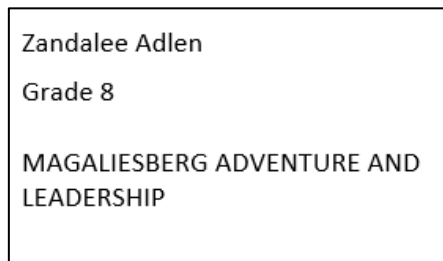


Figure 5

(2)

4.1.5 Ensure that each label has a dotted-line border. (2)

4.2 Ensure that all labels have all the fields included. (1)

4.3 Complete the merge of the document and ensure that all records are visible. (2)

Save this document as **q4MailMerge-YourExamNumber** in the **Correspondence** folder.

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QUESTION 5 Spreadsheets

Open the spreadsheet called **q5_1Learners** in your examination folder and make the following changes:

- 5.1 Note that the following questions apply to the worksheet *Sheet1*.
 - 5.1.1 Rename *Sheet1* to *Learners Data*. (1)
 - 5.1.2 Change the font colour of the cells in the range **A1** to **K1** to blue. (1)
 - 5.1.3 Insert a row below row 1. (1)
 - 5.1.4 Format the text in cells **A3** to **K3** so that text appears on two lines and is easily legible. (1)
 - 5.1.5 Take note of the error message in **D4** to **D48** and correct this error. (1)
 - 5.1.6 In cell **A4**, insert a formula to make up a learner code that has the following format:
 - the first three characters of the learner's surname;
 - followed by two characters starting with the second character of the learner's name;
 - followed by the year of the learner's date of birth.

All the characters must appear in lower case. Copy the formula to **A5:A48**. Refer to **Figure 6** below showing the result for the first few records. (6)

	LEARNER CODE	SURNAME	NAME	DATE OF BIRTH
3				
4	bakua2003	BAKER	Juandre	Monday, November 17, 2003
5	brear2003	BREEDT	Marthin	Sunday, November 30, 2003
6	de oh2002	DE NYSSCHEN	Johannes	Saturday, May 04, 2002
7	dieic2003	DIEDERICKS	Micke	Tuesday, August 12, 2003
8	hugil2003	HUGHES	Hilton	Monday, September 22, 2003
9	whiob2003	WHITEHEAD	Robert Ernest	Tuesday, May 20, 2003

Figure 6

- 5.1.7 Insert a function in cell **G4** to determine the excursion fee of each learner according to his/her excursion. The individual excursion fees are given in the *Fee Table* worksheet. Copy the formula to **G5:G48**. (5)
- 5.1.8 In cell **K4**, determine the amount learners still have to pay and copy the formula to **K5:K48**. (2)

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

- 5.1.9 In cell **B2** to **B7**, determine the number of learners on each of the following excursions:
 - (a) Cape
 - (b) Garden Route
 - (c) Mpumalanga & Limpopo
 - (d) Gauteng
 - (e) KwaZulu-Natal
 - (f) Magaliesberg Adventure and Leadership (4)

5.1.10 Complete the Age Analysis as follows:

(a) In cell **B10**, determine the date of birth of the youngest learner. (2)

(b) In cell **B11**, determine the date of birth of the second oldest learner. (2)

5.1.11 In cell **B14**, determine the total amount outstanding. (2)

5.1.12 In cell **B15**, determine the average excursion fee per learner. (2)

5.1.13 Format the cells **B14** and **B15** containing monetary values to an appropriate data type. (1)

Save the document as **q5_1Learners-YourExamNumber** in the **Admin** folder and close it.

Open the document called **q5_2ExcursionDetails** and make the following changes:

5.2 Note that the following questions apply to the worksheet called *Details*.

5.2.1 Sort the data in **A2** to **F7** in ascending order according to the EXCURSION column. (2)

5.2.2 Determine the duration of each excursion in Column D. Ensure that your answer appears as number of days. (3)

5.2.3 Apply conditional formatting to **E2:E7** so that there is a three-colour scale with a lowest value being red, the midpoint value must be yellow and the maximum value must be light grey. (5)

5.2.4 One teacher per excursion is allowed to travel in his/her own car. The school then reimburses this teacher according to AA rates. The AA rate is given in cell **A2** in the worksheet called *AA_Rate*. Calculate the amount each of these teachers will receive from the school to cover their mileage in the worksheet *Details*. (3)

5.2.5 Insert a column chart as follows:

(i) Use the data in **A1** to **A7** and **E1** to **E7**. (2)

(ii) Chart must be a 3-D column chart. (1)

(iii) Ensure that the data labels per excursion appear in the chart above each column. (2)

(iv) Remove the legend. (1)

(v) Insert the chart into a new worksheet. (1)

Save **q5_2ExcursionDetails-YourExamNumber** in the **Admin** folder and close it.

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QUESTION 6 Databases

The database called **q6LearnerExcursions** has been saved in your exam folder. Use this database to answer the following questions.

- 6.1 Make the following changes to the table called *tblLearners*.
- 6.1.1 Set the field size of SURNAME to 30. If a warning message about possible data loss appears, click "Yes" to continue. (1)
 - 6.1.2 Change the date format for the field DATE OF BIRTH to medium date. (2)
 - 6.1.3 Create an Input Mask for CELLPHONE_NUMBER to ensure all phone numbers are entered in the format (3 numbers) space 3 numbers space then 4 numbers. All numbers are required. See the example below:

(072) 792 1233

 (2)
 - 6.1.4 Create a combo box that looks up the values given in *tblExcursions* for the EXCURSION field. (3)
 - 6.1.5 Create a validation rule for the GENDER field to only allow F or M. Add appropriate validation text. (2)
- 6.2 Import the named range *Accommodation* in the spreadsheet called **q6Import** into the table *tblAccommodationSelection*. (2)
- 6.3 Create a form to enter data into the table called *tblLearners*.
- 6.3.1 Use all the fields in the table. The form must be laid out using the justified layout. Name the form *frmLearnerData*. (4)
 - 6.3.2 Edit the title of the form so that the text is red and has a border. (2)
 - 6.3.3 Add two buttons for record navigation that allow the user to move to the previous record or the next record. (2)
- 6.4 Create *qryCellphoneNumbers* to display only NAME, SURNAME and CELLPHONE_NUMBER of the learners whose surnames start with the letter "D". (3)
- 6.5 Create *qryTotalAmountPaid* to determine the total amount already paid by the learners. Display only the amount. (2)

6.6 Create *qryGauAccNums* as follows:

- 6.6.1 Determine all learners taking part in the Gauteng excursion who need accommodation. (2)
- 6.6.2 Display only the NAME and SURNAME fields. (2)
- 6.6.3 Sort the list alphabetically according to SURNAME. (2)

6.7 Create a query called *qryPercentagePaid* to determine the amount paid by each learner as a percentage of their full excursion amount. Store this value in a calculated field called PercentagePaid. Ensure that only the LEARNER_CODE and the PercentagePaid fields are displayed. The PercentagePaid field must have the % sign displayed as shown in **Figure 7**.

LEARNER_CODE	PercentagePaid
bakua386	25.75%
brear399	26.00%
de oh554	31.09%
dieic289	38.57%
hugil330	42.95%
annea317	30.17%
bosob316	29.92%
de yn170	28.38%
devob108	35.07%
elsua432	41.32%
yenar113	26.25%

Figure 7

(4)

6.8 Create a report called *rptAmountOutstanding* as follows:

- 6.8.1 Display the fields NAME, SURNAME, EXCURSION and CELLPHONE_NUMBER. (1)
- 6.8.2 Group the data according to EXCURSION and sort according to SURNAME. (2)
- 6.8.3 Insert a field with the label AmountOutstanding to calculate the amount still outstanding per learner. Insert the calculated field in an appropriate place. (3)
- 6.8.4 Insert your exam number in the centre of the footer of the report. You may resize or move other components in the footer. (1)

Save and close the database.

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QUESTION 7 HTML

In order to generate support and raise hype about the excursions you have decided to use a website. Apply the following instructions as you set up the site.

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

- 7.1 Set the background colour of the page to #EEE8AA. (2)
- 7.2 Format ALL heading tags as follows:
- 7.2.1 The font colour must be blue. (1)
 - 7.2.2 Change the font type to Verdana. (1)
 - 7.2.3 Align all the headings to the centre. (1)
 - 7.2.4 Ensure that all the headings are bold. (1)
- 7.3 Add the image **KZN_Excursions.jpg**, which can be found in the **Images** subfolder, to the webpage just below the main heading "School Excursions" but above "Putting the fun into Education". The width and height of the image should both be set at 30%. (4)
- 7.4 Convert the list of excursions to a numbered list. (3)
- 7.5 Replace the text "ExamNumber" at the bottom of the page with your exam number. (1)
- 7.6 Apply appropriate tags to make your exam number a hyperlink to the page called **features**. (2)

Save and close the file called **index**.

Note that the following questions apply to the file called **features**.

- 7.7 Apply the following attributes to the table:
- 7.7.1 Ensure that the table border is visible and that it has a width of 5 px. (1)
 - 7.7.2 Table width must be 80% and aligned to the centre. (2)
 - 7.7.3 Ensure that the background colour of the table is "00FFFF". (2)

Save and close the file called **features**.

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Total: 180 marks