COMPUTER APPLICATIONS TECHNOLOGY: PAPER II

Time: 3 hours   180 marks

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1.   This question paper consists of 11 pages and an HTML Tag List insert of one page. Please check that your question paper is complete.

2.   You may only use text-based editors for the HTML section, namely Notepad, Notepad ++, WordPad and 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 solution required and the amount of time needed to be spent on each question.

5.   It is in your best interest to get into the habit of saving 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 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 one subfolder and 16 files in your examination folder. Refer to **Figure 1** below and check that the following folders and files exist in your examination folder:
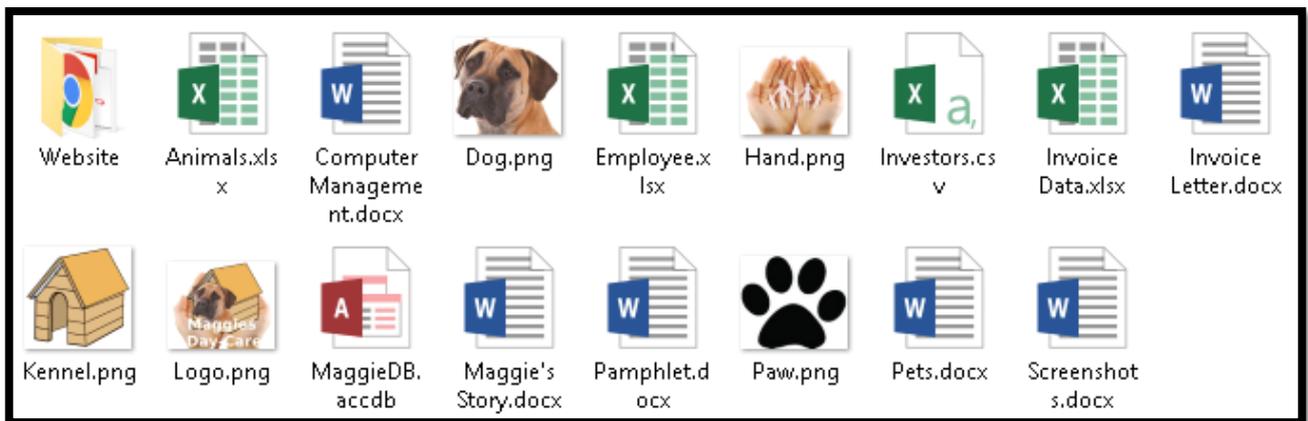

Figure 1

The **Website** subfolder contains 2 files and 1 subfolder. Refer to **Figure 2** below.

Figure 2

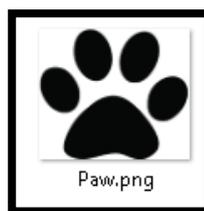The **Images** subfolder within the website folder contains 1 file. Refer to **Figure 3** below.

Figure 3

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

SCENARIO

Katlego and you start a company called Maggie's Day Care where you will look after animals in your neighbourhood while their owners are working. You play with them, walk them, groom them and just spend time with animals that are left on their own for most of the day.

QUESTION 1

1.1 Add properties to the file **Maggie's Story** as follows:

    1.1.1 Set the Title detail to be "The start of Maggie's Day Care". (1)

    1.1.2 Set the Author detail to be *your IEB examination number*. (1)

1.2 Convert the **Investors** file from a csv to an xlsx file. (2)

1.3 Compress the three image files **Dog**, **Hand** and **Kennel** into a single file called *your IEB examination number*. (3)

1.4 Create a shortcut to your HTML editor as follows:

    1.4.1 Create a new folder called HTML-Editor. (2)

    1.4.2 Within the folder, create a shortcut to the HTML editor you will be using during this examination. (2)

Open the document **Computer Management** and answer the following questions in the appropriate section:

1.5 Provide a detailed reason why you would convert a file from a csv to an xlsx file as you did in question 1.2. (2)

1.6 Provide the name as well as the version of the operating system your computer is using. (2)

1.7 It is important to know what the word length of the operating system is, i.e. whether it is 32-bit or 64-bit. Provide a screenshot showing the word length of the operating system on the computer you are using. (2)

1.8 Katlego needs to run a disk clean-up on her computer. Provide Katlego with steps on how to run the disk clean-up utility. (3)

Save and close the document **Computer Management**.

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QUESTION 2

Open the word processing document **Pets** and make the following changes:

2.1 Insert an endnote to the heading "how to care for your pet" of "Taken from http://www.wikihow.com/Take-Care-of-Your-Pet on 22nd April 2017". (2)

2.2 Modify the heading 1 Style as follows:

    2.2.1 Set the font to be all caps. (1)

    2.2.2 Set the font colour to be a dark red. (1)

    2.2.3 Set the paragraph alignment to be centre. (1)

    2.2.4 Add a double line border around the whole text. (2)

2.3 Under the heading "how to care for your pet" insert an **automatically updating** table of contents. (2)

2.4 Insert a page break after the table of contents. (1)

2.5 Change the first set of bullet points starting with the text "Most pets require…" and ending with the text "…more stable", to the image **Paw** found in your preloads. (2)

2.6 Add your examination number to the right of the header. (2)

2.7 Set up part 2 of the document as a new section as follows:

    2.7.1 Add a next page section break before the heading "Part 2 – Caring for your pet". (2)

    2.7.2 Set only this section to landscape. (2)

    2.7.3 Set the margins of only this section to be 1,5 cm left and right. (2)

    2.7.4 Add a shadow page border to this section only with a width of 3 pt. (2)

Save and close the document **Pets**.

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QUESTION 3

You decide to create a pamphlet indicating the prices you charge for the different services offered.

Open the word processing document **Pamphlet** and make the following changes:

3.1   Insert an image as follows:

      3.1.1   Add the image **Logo** centred between the 'Services Offered' and 'Walk' headings. (2)

      3.1.2   Set the image to have a single border around the image. (1)

      3.1.3   Set the image to have a gradient fill of any colour. (2)

3.2   Add Drop Cap to the text 'Services Offered'. (2)

3.3   Apply tab stops to all text after each of the headings 'Walk', 'Groom' and 'Feed' as follows:

      3.3.1   Add a 4 cm left tab stop with a dotted leader. (2)

      3.3.2   Add a 12 cm decimal tab stop. (2)

3.4   Add a comment to the text 'Spider' which says: 'Nope'. (2)

Add your examination number to the header of the document.

Save and close the document **Pamphlet**.

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QUESTION 4

You want to create an invoice that will be populated from the spreadsheet. The invoice will include details of services you have done for your clients.

Open the word processing document **Invoice Letter** and make the following changes:

4.1   Modify the table as follows:

4.1.1   Merge all the cells in the first row. Right align the text in the merged cell. (2)

4.1.2   Set the fill colour of only the fourth column from rows 3 to 7 to have a grey background. (2)

4.1.3   Set the table to have no borders except a double border above the last row. (3)

4.2   Merge the document as follows:

4.2.1   Link the document to the data source **Invoice Data** using the sheet named *Data*. (2)

4.2.2   Sort the Data in descending order by the <u>Overall Total</u> field. (2)

4.2.3   Insert the field codes <u>Invoice No.</u>, <u>Description 1</u>, <u>Cost 1</u>, <u>Quantity 1</u>, <u>Total 1</u>, <u>Description 2</u>, <u>Cost 2</u>, <u>Quantity 2</u>, <u>Total 2</u> and <u>Overall Total</u> where indicated by <<field>> text. (2)

4.2.4   Complete the merge, and save the completed merged document as **Invoice Merged**. (2)

Add your examination number in the header of the document.

Save and close the document **Invoice letter**.

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QUESTION 5

Open the spreadsheet **Animals** and note that the workbook consists of three worksheets, namely *Activity*, *Invoice*, *Dogs*.

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

5.1   Modify the heading in cell A1 as follows:

      5.1.1 Merge and right align cells A1:D1.   (2)

      5.1.2 Set the font size to 16.   (1)

      5.1.3 Set a double green border around the completely merged cells.   (2)

5.2   Set the cell range A3:A5 to have bold text and a yellow background.   (2)

5.3   The following is an approximate calories calculation:

Calories = Avg. Heart Rate × 0.6 × Time

Insert a calculation in cells D3 to D5 to determine the approximate number of calories for each activity.   (3)

5.4   Set the text direction of cell E1:E5 to vertical text, reading downwards.   (1)

5.5   By utilising the data in cells A2:B5, recreate the following chart on the same sheet. Refer to Figure 4.   (4)
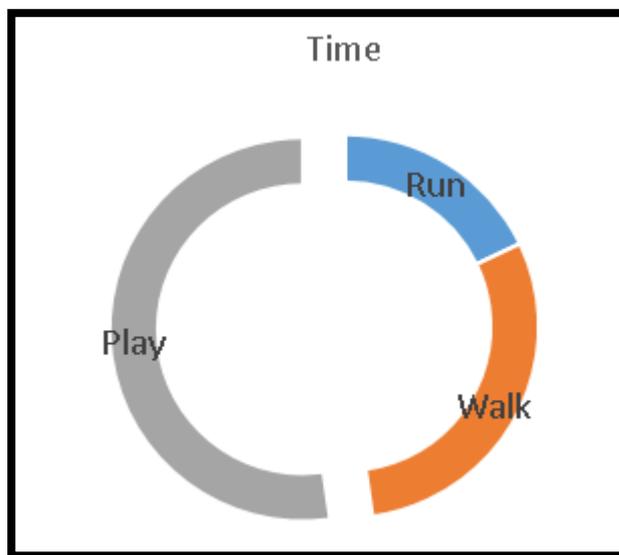

Figure 4

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

5.6   Set cells A1:D1 to vertically and horizontally centred.   (2)

5.7   Format column C to accounting with 1 decimal place.   (2)

5.8   In column D (Q 5.8) insert a calculation to determine the discount on the charge. The percentage discount is in cell G1.

Discount = Charge × Discount

Expand the calculation to the other cells in column D. *Hint: make use of absolute cell referencing.*   (3)

5.9   In cells K2, K3 and K4 insert a calculation to determine the total income from Feed, Walk and Groom type services respectively. The discount does NOT need to be applied.   (4)

5.10   In cell K5 insert a calculation to determine the average charge for all the invoices.   (2)

5.11   In cell K6 insert a calculation to determine the maximum charge for all the invoices.   (2)

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

5.12   Setup the page as follows:

5.12.1   Set the paper size of the sheet to A4.   (1)

5.12.2   Set the document to print centre of the page vertically and horizontally.   (2)

5.12.3   Insert the image **Paw** into the right of the footer.   (2)

5.12.4   Set row 1 to repeat when printed.   (2)

5.12.5   Set the page to print gridlines.   (1)

5.13   Add data validation to column B to allow values from the list located in cells K2:K6.   (3)

5.14   Add a custom number format to column C to display the number followed by a space then the character's 'kg'.

For example, 40 should display as 40 kg   (2)

5.15   In column D insert a calculation to determine if the dog is a small, medium or large breed.

A small dog is any dog under 15 kg;
A medium dog is any dog between 15 kg and 30 kg;
A large dog is any dog over 30 kg.

Small, Medium or Large should be displayed in the cell.   (4)

5.16   In column F insert a calculation to determine a unique code for the dog. A unique code contains the first 3 letters of the dog's name, followed by the last 4 letters of the dog's breed followed by the YOB (Year Of Birth).

For example, Felix the German Shephard who was born in 2009 would have the unique code of Felhard2009.   (4)

Add your examination number in the header of each worksheet.

Save and close the workbook **Animals**.   **[51]**

QUESTION 6

You design a database to keep track of your clients and the services rendered to them.

Open the database **MaggieDB** and apply the following changes:

6.1   Apply the following changes to the table *Animal*:

  6.1.1   Set the <u>Animal ID</u> field as the primary key field and give an appropriate data type.   (2)

  6.1.2   Set the <u>Type</u> field to lookup the values Dog, Monkey, Cat, Lizard and Spider. The selection should be restricted to the list.   (3)

  6.1.3   Add a validation rule to the <u>Weight</u> to ensure only numbers greater than 0 and less than 100 can be entered.   (3)

  6.1.4   Add an input mask to the <u>Code</u> field to ensure that the user must input two numbers between 0 to 9, followed by a separator of a dash (-) and then two letters must be entered. *Please refer to Figure 5 for a list of characters that define input masks.* For example, 12-Cb or 48-BA.   (4)

Char	Explanation	Char	Explanation	Char	Explanation
0	User must enter a digit (0 to 9).	9	User can enter a digit (0 to 9).	#	User can enter a digit, plus or minus sign.
L	User must enter a letter.	?	User can enter a letter.	A	User must enter a letter or a digit.
a	User can enter a letter or a digit.	&	User must enter either a character or a space.	C	User can enter characters or spaces.
.,:;-/	Decimal and thousands placeholders, date and time separators.	>	Converts all characters that follow to uppercase.	<	Converts all characters that follow to lowercase.
!	Causes the input mask to fill from the left to right.	\	Characters immediately following will be displayed literally.	""	Characters enclosed in double quotation marks will be displayed literally.

Figure 5

6.2   Import data from the **Employee** spreadsheet file into the table *Employee*.   (2)

6.3   Apply the following changes to the table *Log*:

6.3.1   Set the <u>Client</u> field to look up from the table *Client*. The <u>Client ID</u> field should be stored, but only the <u>First Name</u> and <u>Surname</u> fields displayed.   (4)

6.3.2   Set the <u>Type</u> field to be required.   (1)

6.4   Create a form as follows:

6.4.1   Create a form called *Client Entry*, using all fields from the *Client* table.   (2)

6.4.2   Replace the <u>Title</u> field with a combo box that will allow the user to select between Mr, Mrs and Miss. This combo box must be linked with the <u>Title</u> field.   (3)

6.5   Create queries as follows:

6.5.1   Create a query called *Happy Women's Day* that will list all records from the table *Client* that are female. All fields should be displayed.   (3)

6.5.2   Create a query called *Total Types* based on the *Log* table that will display each <u>Type</u> and the total number of times this type was logged.   (3)

6.6   Create a report as follows:

6.6.1   Create a report called *Work Log*, using all fields from the table *Charge* and all fields from the table *Log*. The report should be grouped by the table *Charge*.   (3)

6.6.2   Add your examination number to the report header.   (1)

6.6.3   Modify the report so that all fields and their headings are clearly displayed.   (1)

6.6.4   Add a field to the detail section which will calculate the total charge by taking the <u>Quantity</u> field from the *Log* table and multiplying it by the <u>Charge</u> field from the *Charge* table.   (4)

Save and close the database **MaggieDB**.

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QUESTION 7

Update Maggie's day care website as follows.

Open **Services.html** in the subfolder **Website** and apply the following changes:

7.1 Add a title to the page to read 'Services by' and include your examination number. (2)

7.2 Add a heading as follows:

    7.2.1 Add a level 1 heading of 'Services Offered' to the body of the web page. (2)

    7.2.2 Set the font colour to blue. (2)

7.3 After the heading, add a hyperlink displaying the text 'Click here' that will link to the file **Service.pdf**. (2)

7.4 After the link add an image to the page as follows:

    7.4.1 Add the image **Paw.png**. (2)

    7.4.2 Set the width of the image to 80. (2)

7.5 Add a table as follows:

    7.5.1 Border of size 2. (2)

    7.5.2 Set the width and height of the table to 200. (2)

    7.5.3 2 columns by 3 rows. (2)

    7.5.4 First cell merged over two columns. (2)

Save and close **Services.html**.

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Total: 180 marks