



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

COMPUTER APPLICATIONS TECHNOLOGY P1

EXEMPLAR 2014

MARKS: 180

TIME: 3 hours

This question paper consists of 17 pages and a separate information sheet.

INSTRUCTIONS AND INFORMATION

1. Owing to the nature of this three-hour examination, it is important to note that you will NOT be permitted to leave the examination room before the end of the examination period.
2. Insert your examination number in the header of EVERY document that you create or save.
3. 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.
4. This question paper consists of SEVEN questions.
5. Answer ALL the questions.
6. Ensure that you save each document using the file name given in the question paper. Save your work at regular intervals as a precaution against possible power failures.
7. Read through each question before answering or solving the problem. Do NOT do more than is required by the question.
8. At the end of the examination you must hand in the disk given to you by the invigilator with ALL the files saved on the disk, OR you should make sure that ALL the files are saved on the network/computer as explained to you by the invigilator/teacher. Make absolutely sure that all files can be read.
9. The separate 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.
10. During the examination you may use the help functions of the programs which you are using. You may NOT use any other resource material.
11. If data is derived from a previous question that you cannot answer, you should still proceed with the questions that follow.
12. Unless instructed otherwise, you must use formulae and/or functions 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.
13. In all questions involving word processing, you should set the language to English (South Africa). Assume the paper size to be A4 Portrait, unless instructed otherwise.

14. The examination folder/data disk that you receive with this question paper will contain the files listed below. Ensure that you have all the files before you begin with this examination.

• Q1Statistics_Statistiek	Word processing file
• Q1Sugar_Suiker	Image file
• Q2Tips_Wenke	Word processing file
• Q3Health_Gesondheid	Spreadsheet file
• Q4Gym_Gim	Spreadsheet file
• Q4Health_Gesond	Image file
• Q5Food_Voedsel	Database file
• Q6Dirt_Vuil	Image file
• Q6Healthy_Gesond	Word processing file
• Q6HomeSafe_HuisVeilig	HTML file
• Q7Hygiene_Higiene	Word processing file
• Q7Preparation_Voorbereiding	Presentation file
• Q7Data	Spreadsheet file
• Q7Certificate_Sertifikaat	Word processing file

SCENARIO

Many factors affect your health. Factors such as your genetic makeup or your age you cannot control, but you can control your lifestyle. To help you reduce your risk of heart disease, cancer, stroke and other serious diseases, you can take steps towards a healthier lifestyle. A campaign was started to make people more aware of the dangers of an unhealthy lifestyle.

**QUESTION 1: WORD PROCESSING**

A document containing statistics regarding fast food was created to make people aware of how unhealthy fast food can be.

Open the document **Q1Statistics_Statistiek**.

- 1.1 Locate the text 'Fast Food Statistics'. Change this text as follows:

Apply WordArt in the Accent 1 (with Inner Shadow) Style.

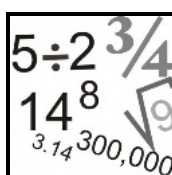
Fast Food Statistics

(3)

- 1.2 Use a feature of the word processor to replace all instances of '~~fast food~~' with '**fast food**' (bold).

(3)

- 1.3 In paragraph 1, change the size of the picture (shown below) to exactly 3 x 3 cm.



(2)

- 1.4 Insert a heart shape after the word 'anyone?' in the heading of paragraph 3. Fill the shape with the picture *1Sugar_Suiker.jpg* so that it appears as shown below.



3. Sugar anyone?

(3)

- 1.5 Swop the information in paragraph 5 with the information in paragraph 6 without changing the numbering order of the paragraphs. (1)

5.	Get your veggies.
What is the number one vegetable? Potato. French fries don't really qualify as a vegetable, but it's still the most consumed? Are you concerned with your family's health? Eating deep fried starch is a good place to start. Or at least you could rather have some fresh fibre!	
6	Mommy! Daddy! Happy meal!
Well, this advertisement does not even need words. Research shows that most North American children can recognize McDonalds before they can speak. That is truly an acknowledgement to fast food advertising.	

- 1.6 Locate the two paragraphs under the heading '7. And to top it all off? ...'.
These two paragraphs have been typed in upper case. Change them to sentence case. (1)

- 1.7 Insert a page background on all the pages, using:
• A vertical, gradient fill effect
• The colours blue and white (3)

- 1.8 Place a page border around the first page of the document. The border style must be a 10 point Art-style border. (3)

- 1.9 Insert the text 'Adapted' as a watermark in the document. (2)

- 1.10 Add a cover page to the document as follows:
• Use the 'Alphabet' cover page format from the gallery.
• Insert '**Food Statistics**' as the document title.
• Remove the rest of the options/controls from the cover page completely. (3)

- 1.11 Add a footnote to the text '\$460.00' in paragraph 2.
• Use the '*' (star) symbol as a custom mark to mark the footnote.
• The text 'Equal to ±R4500.00' should appear as the footnote text. (3)

- 1.12 Locate the word 'smarter' in the second last line of the document.
Add a hyperlink to this text as follows:
• The hyperlink must link to the website <http://www.smart-health-eating.com>.
• The text 'Eat smart!' must display when the mouse hovers (is moved) over the hyperlink. (3)

Save and close the **Q1Statistics_Statistiek** document. [30]

QUESTION 2: WORD PROCESSING

Not everyone knows how to live a healthy life. A document was created with tips to consciously live healthier.

Open the document **Q2Tips_Wenke**.

2.1 Place a Table of Contents at the top of the first page.

The Table of Contents must:

- Include only the styles Heading 1 and Heading 2
- Use the simple format
- Have right-aligned page numbers

Healthy Food Tips	1
1. <i>Don't believe what you read!</i>	1
2. <i>Fresh Fibre First</i>	1
3. <i>Eat some fat!</i>	2
4. <i>Eat some dirt.</i>	2
5. <i>Try a salad.</i>	2
6. <i>Eat meat</i>	2
7. <i>Drink some water</i>	3
8. <i>Eat Smart!</i>	4

(4)

2.2 Locate the text that starts with the heading 'Don't believe what you read! ...' and ends with '... smart healthy eating.'

Place this text in columns as follows:

- The text must appear in two columns.
- The heading '2. Fresh Fibre First' must always appear at the top of a column.

(2)

2.3 Change the paragraph spacing of the paragraph that starts with 'Do you love food? ...' and ends with '... some fresh fibre first.' to 12 pt before the paragraph.

(1)

2.4 Locate the paragraph that starts with '4. Eat some dirt ...' and ends with '... your kid's mud pies'.

Apply the following options to this paragraph:

- Prevent widows and orphans.
- Keep the lines together on one page.

(2)

- 2.5 Add a caption above the picture of water under the heading '7. Drink some water'. This caption must be **Water 1**. (2)
- 2.6 Change the orientation of only the page with the tables (under the heading '8. Eat Smart!') to landscape. (2)
- 2.7 Locate the BMI table at the end of the document.
- 2.7.1 Divide the table into two tables, separating the red and purple parts. (1)
- 2.7.2 Place a triple-line outside border around the second (purple) table as shown below.

BMI	Classification
18.5 to 24.9	Normal weight
25 to 29.9	Overweight
30 +	Obesity
40 +	Extreme obesity

BMI of Children and Adolescents Ages 2–19	
BMI	Classification
At or above the 85th percentile	Overweight or obese
At or above the 95th percentile	Obese

- 2.8 Locate the text below the tables at the end of the document.

Format the text, using the layout and formatting options shown in the diagram below.

Selected Characteristics	Very good to Excellent	Poor to Good
Male	38103	10253
Female	36414	9526
0 - 4 Years	21254	5615
5 - 11 Years	29014	7663
12 - 17 Years	24249	5600

- 2.9 Use automatic numbering to place right-aligned page numbers in the footer of the odd-numbered pages and left-aligned page numbers on the even-numbered pages. (2)

Save and close the **Q2Tips_Wenke** document.

[20]

QUESTION 3: SPREADSHEET

A health survey was conducted on a group of learners at a local high school. The survey data was stored in a spreadsheet.

Open the spreadsheet **Q3Health_Gesondheid** and work in the worksheet **Sheet1**.

3.1 Format the worksheet as follows so that it becomes more readable:

3.1.1 Merge and horizontally centre the contents of the cells in range A1:L1. (1)

3.1.2 Apply a fill colour of your choice to the column headings in row 3. (1)

3.2 The body mass index (BMI) is calculated as follows:

$$\text{weight}/(\text{height} * \text{height})$$

Add a formula to cell G4 to calculate the **BMI** for the first learner. (3)

3.3 Column H contains the learners' responses to the **Activity Level** question.

3.3.1 Add a function in cell O9 to determine how many learners chose not to respond to this question. (2)

3.3.2 Add a function in cell O5 to determine how many learners responded with 'Inactive'. (3)

3.4 The researchers want to know which **Age** group (column D) has the highest number of learner participants.

Add a function in cell D30 to determine the **Age** group that has the highest number of learner participants. (2)

3.5 Add a function in cell D31 to determine the total weight of all the female participants in the survey. (4)

3.6 A health risk factor for learners, based on their level of activity, is calculated as follows:

Activity Level Category	Risk Factor
Male learners whose Activity Level is inactive	Critical
Female learners whose Activity Level is inactive	High
All other learners	No risk

Add nested IF statements in column L to display the learners' risk factor.

This is based on the learners' level of activity (column H) and the table above. (4)

3.7 A BMI that is greater than or equal to 35 is a matter of concern.

Apply suitable formatting to Column G so that all cells with a BMI greater than or equal to 35 are automatically displayed with a red border. (3)

3.8 Rename Sheet1 as **Survey**. (1)

Save and close the **Q3Health_Gesondheid** spreadsheet. [24]

QUESTION 4: SPREADSHEET

The local gym, called Step Up Gym, has the details of its members entered in a spreadsheet.

Open the spreadsheet **Q4Gym_Gim** and work in the worksheet **Members_Lede**.

4.1 Add a function in cell B3 that will always display the current date. (1)

4.2 Wrap the column headings in row 6. (1)

4.3 Format the **Subscriptions per month** column (column G) and **Reduced Subscriptions** column (column H) to currency. (1)

4.4 Enter a function in cell G43 to determine the total subscriptions Step Up Gym receives per month based on the **Subscriptions Per Month** (column G). (2)

4.5 Enter a formula in cell C7 to calculate the age for the first member in completed years using the **Today's Date** in cell B3 and the member's **Date of Birth** in cell B7.

For example, if the current date is 2014/06/04 then:

- A member born on 1982/05/24 will be 31 years in completed years
 - A member born on 1982/09/10 will be 32 years in completed years
- (4)

4.6 Add a VLOOKUP function in cell K7 to display the reason why this member (Dane Sexton) goes to gym.

This is based on the reason provided in J7 and the data provided in the **Reason_Rede** worksheet of the spreadsheet.

Ensure that the function will work correctly if it were to be copied down to the rest of the cells in column K. (4)

4.7 The full name of the member is stored in column A in the following format:

First Name and Surname

for example Dane Sexton or Jeanette Mckinney.

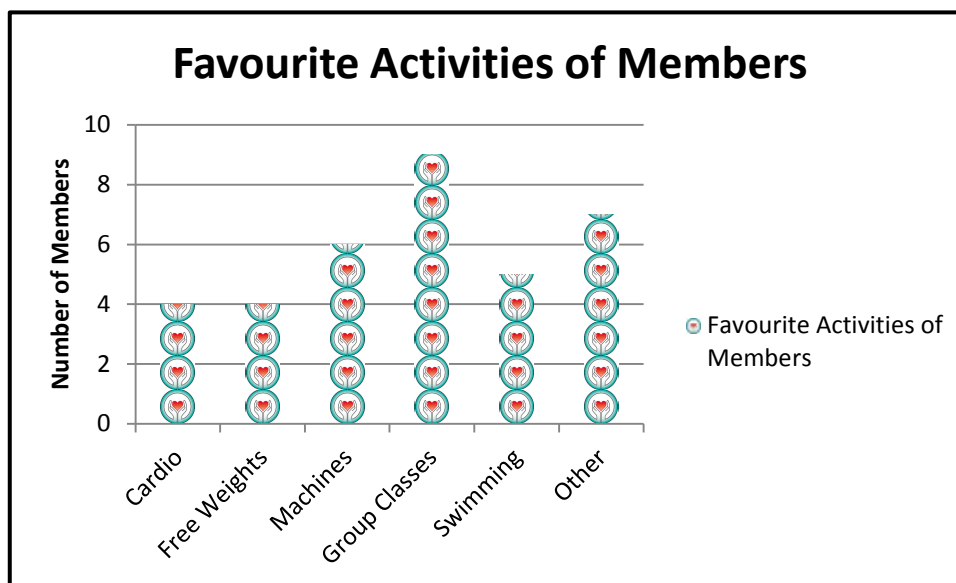
Codes are needed for each member. The code consists of the first two letters of the member's surname, for example Mc for Jeanette McKinney or Gr for Hasad Griffith.

NOTE: You may assume that each member only has one first name and that there is always a single space between the first name and the surname.

Ensure that the formula would work correctly if it were to be copied down to the rest of the cells in column F.

Enter a function/formula in cell F7 to determine the first two letters of Dane Sexton's surname that will form part of the member code. (5)

- 4.8 Construct a chart/graph to show the favourite activities of members in the gym using the data in cells J44:L49 and the following options:



- The graph must be a 2D column chart.
- The vertical axis must have a rotated title that reads 'Number of Members'.
- Change the scale of the vertical axis to 2.
- The legend must read as 'Favourite Activities of Members'.
- The columns must be stack filled with the **Q4Health_Gesond.jpg** image provided.
- Once completed, the graph must be moved to a separate worksheet called **Graph**.

Save and close the **Q4Gym_Gim** spreadsheet.

(8)
[26]

QUESTION 5: DATABASE

You have been asked to assist in the analysis of the places where people eat and the types of food that people eat.

Open the database **Q5Food_Voedsel**.

5.1 Work in the **Recipe_Resepete** table.

5.1.1 Assign suitable data types to all fields in the table:

- The *Recipe Name* field should have a maximum size of 40.
- The *Ingredient* and *Method* fields will have more than 255 characters.

(5)

5.1.2 Change the name of the *Calories per serving* field to *Number of calories per serving*.

(1)

5.1.3 Add a new field called *Photo*. Use a suitable data type.

(2)

5.1.4 Set a primary key on a suitable field in the table.

(2)

5.1.5 Set a suitable validation rule on the *Number of calories per serving* field to ensure that only values between 0 and 50 are entered. Set suitable validation text to guide the user.

(4)

5.1.6 Use a drop-down list in the *Food Category* field to ensure that only Breakfast, Lunch, Snack, Supper can be captured in the same order.

(3)

Save and close the table **Recipe_Resepete**.

5.2 Create a form called **frmInfo** based on table **Nutritional Value**.

5.2.1 Only add the *Type of Food*, *Healthy* and *Protein(g)* fields to the form.

(1)

5.2.2 Change the heading of the form to 'Protein Content' and ensure that the text is centred in the form header.

(1)

5.2.3 Add the date as a field in the form footer.

(2)

Save and close the form **frmInfo**.

5.3 Create a query called **qryNutVal** based on the **Nutritional Value** table as follows:

- Only the *Franchise*, *Calories* and *Carbohydrates(g)* fields must be displayed.
- The calorie content must be between 350 and 1000 inclusive.
- *Carbohydrates(g)* must be greater than 20.
- Only *Franchises* starting with 'Bu' must be listed
- Sort the *Type of Food* field in descending order.

(6)

Save and close the query **qryNutVal**.

5.4 Open the query **qryKilojoule**. The *Calories* field supplies the total calories per food type.

- Insert a calculated field called *Kilojoules* which will calculate the number of kilojoules for each meal if 1 calorie = 4.17 kilojoules.
- Display only the records of Burger Queen Franchise and do not display any type of food with zero calories.

(5)

Save and close the query **qryKilojoule**.

5.5 Create a report called **CaloriesCounter** based on the **Nutritional Value** table as follows:

- Display only the *Franchise*, *Type of Food* and *Calories* fields.
- Group the records in the report according to the *Franchise* field, keeping all the franchise groups together on one page.
- Sort the records according to the *Type of Food* field.
- Insert a function in the report, with an appropriate label, to determine the average number of calories for the food types produced by each franchise. Round these totals to the nearest whole number.

(8)

Save and close the report.

[40]

QUESTION 6: WEB DESIGN (HTML)

You have to finalise a web page that was created with regards to food fibs.

Open the web page **Q6HomeSafe_HuisVeilig**.

NOTE: Question numbers are inserted as comments in the coding as guidelines as to approximately where the answer(s) should be inserted.

You have been supplied with an HTML tag reference sheet.

Your final web page should look as follows:

Food Fibs	
	
Fib	Fact
Only kids eat raw cookie dough and cake batter. If we just keep kids away from the raw products when adults are baking, there won't be a problem!	No one of any age should eat raw cookie dough or cake batter because it could contain germs that cause illness.
When kids wash their hands, just putting their hands under running water is enough to get the germs off.	Rubbing hands with water and soap is the best way to go. - Wet your hands with water. - Add soap. - Rub your hands together for 15 seconds. - Rinse hands under running water.
Healthy habits for healthy kids!	

- 6.1 Change the tags so that the text 'Home Safety' appears in the browser tab. (1)
- 6.2 Change the background colour of the web page to orange. (1)
- 6.3 Move to the top of the page.
- 6.3.1 Insert a paragraph that reads 'Food Fibs'. (2)
- 6.3.2 The font of 'Food Fibs' should be Forte AND the font size should be increased by 20. (2)
- 6.3.3 Align the paragraph to the centre of the page. (1)

- 6.4 Work in the first cell of the table.
- 6.4.1 Insert the image **Q6Dirt_Vuil** in the first row of the table. The creator of the web page has started by entering the text '<img'. (2)
- 6.4.2 Enter the text 'Dirty Hands' that will be shown instead of the image should the image not be able to be displayed. (1)
- 6.5 The second item on the list is currently empty.
- Enter the text in the comment as a list item.
 - Delete the comment. (3)
- 6.6 Format the table as follows:
- 6.6.1 Insert a row at the end of the table which is three columns wide. (2)
- 6.6.2 Format the height of the row to 100. (1)
- 6.6.3 Align the text vertically in the centre of the cell. (1)
- 6.7 The text 'Healthy habits for healthy kids!' should be displayed and linked to the document **Q6Healthy_Gesond**. (3)
- Save and close the web page **Q6HomeSafe_HuisVeilig**. [20]

QUESTION 7: INTEGRATION

The owner of an office block has approached you to help him design a form to determine the level of hygiene of all the businesses in the block. This form will be used to allow the customers to rate the businesses according to their hygiene.

Open the document **Q7Hygiene_Higiene** and carry out the instructions below.

- 7.1 Accept the track change in the first line of the document and reject the track change towards the end of the first page. (2)
- 7.2 Carry out the instructions in the comment and then delete the comment. (2)
- 7.3 Complete the design of the form on the first page by completing the following questions:
- 7.3.1 Ensure that the text form field next to the text 'Business type' only allows the user to enter a maximum number of 30 characters. (1)
- 7.3.2 Change the properties of the text form field next to the text 'Business type' so that a message appears if the user presses the F1 key while using this field.
- The text must read 'Do not enter more than 30 characters'. (3)
- 7.3.3 Ensure that the check box field 'Hygiene rating' of 1 appears unchecked every time the document is opened. (1)
- 7.3.4 Replace the symbol on the left of 'Sort results' with a check box form field. (1)
- 7.3.5 Ensure that the form can be used by any user and all the options are visible.
NOTE: Do not use a password. (2)
- 7.3.6 Remove all the personal information, document properties and all the characters formatted as hidden text. (1)
- 7.4 The document **Q7Data** contains all the hygiene ratings collected from each business and each province.
- 7.4.1 Use the data and determine which province has the most hygiene ratings of 5. Display the total of the hygiene rating below the province. (2)
- 7.4.2 Enter the name of the province in the space provided on the template called **Q7Certificate_Sertifikaat**. Save the file as **Q7Winner_Wenner**. (2)

7.5 A PowerPoint presentation called **Q7Preparation_Voorbereiding** has been prepared to inform the public about general food safety.

7.5.1 Convert the PowerPoint presentation to a pdf document. (2)

7.5.2 Protect the PowerPoint presentation by marking it as 'final'. (1)

Save and close **Q7Hygiene_Higiene** and **Q7Preparation_Voorbereiding**. [20]

TOTAL: 180