



# basic education

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Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 12**

**COMPUTER APPLICATIONS TECHNOLOGY P1**

**FEBRUARY/MARCH 2013**

**MARKS: 200**

**TIME: 3 hours**

**This question paper consists of 18 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. Type your examination number in the header of EVERY document that you create or save.
3. The invigilator will give you a disk containing all the files needed for the examination OR you will be told where the files can be found on the network or computer. If a disk has been issued to you, you must write your examination number and centre number on the disk. If you are working on the network, you must follow the instructions provided by the invigilator.
4. 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.
5. This question paper consists of SEVEN questions.
6. Answer ALL the questions.
7. 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.
8. Read through each question before answering or solving the problem. Do NOT do more than is required by the question.
9. At the end of the examination you must hand in the disk given to you by the invigilator with ALL your answer files saved onto the disk, OR you should make sure that ALL your answer files are saved on the network/computer as explained to you by the invigilator/educator. Make absolutely sure that all files can be read. Do NOT save unnecessary files/folders and do NOT hand in duplicate answer files/folders.
10. 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.
11. During the examination you may use the help functions of the programs which you are using. You may NOT use any other resource material.
12. If data is derived from a previous question that you cannot answer, you should still proceed with the questions that follow.
13. Unless instructed otherwise, formulae and/or functions must be used 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.

14. In all questions involving word processing, the language should be set to English (South Africa). The paper size is assumed to be A4 Portrait, unless instructed otherwise.
15. Use centimetres as the unit of measurement when answering this question paper.
16. Generally, 1 mark is allocated per action; therefore a 2-mark question would usually require TWO actions, et cetera.
17. The examination folder/data disk that you receive with this question paper will contain the folder and files listed below. Ensure that you have the folder and all the files before you begin this examination.

• Images_Prente	Folder
• 1Ball_Bal	Image file
• 1Complete_Voltooi	Word processing file
• 1Safe_Veilig	Word processing file
• 2Bicycle_Fiets	Image file
• 2Cards_Kaarte	Word processing file
• 2Quiz_Vasvra	Spreadsheet file
• 3Learner_Leerder	Spreadsheet file
• 5Quiz_Vasvra	Database file
• 6Data_Data	Spreadsheet file
• 6Progress_Vordering	Word processing file
• 7Road_Pad	Spreadsheet file

### SCENARIO

Ms Ally has started a road safety awareness campaign at Brilliant High School. The Computer Applications Technology (CAT) class has volunteered to help with the following tasks:

- Compiling and providing information about safety on the roads
- Maintaining a spreadsheet on the points scored from the Road Safety Awareness Week quiz
- Creating and maintaining a database containing questions for the Road Safety Awareness Week quiz

**QUESTION 1**

The team has prepared an information document to raise awareness of bicycles as a mode of transport.

Open the document **1Safe\_Veilig**.

- 1.1 Locate the text 'Arrive Alive Campaign' on the first page and change this text so that it appears in italics. (1)
- 1.2 Modify the style that is applied to the heading 'Bicycles: Transport for Health?' to display in a black font colour and in small caps/small capital letters. (2)
- 1.3 Change the TWO headings formatted with the Heading 3 style to the Heading 2 style. (2)
- 1.4 Replace all the occurrences of the whole word 'bike' with the word 'bicycle'. (2)
- 1.5 There is one occurrence where the word 'dieting' was misspelt as 'dietting'. Correct this misspelt word. (1)
- 1.6 Insert an automatic table of contents at the top of page 2, showing TWO levels with no hyperlinks and no page numbers. (4)
- 1.7 Locate the brackets that appear after the word 'safety' on page 3.  
Now use the cross reference function to insert the text of the bookmark called '**Suggest\_Voorstel**' in the brackets. (3)
- 1.8 Multilevel automatic numbering has been applied to the paragraph headings on page 3.  
Add and apply second-level numbering to the headings numbered 6 to 10 so that the numbering reads 5.1 to 5.5. (2)
- 1.9 Text is sometimes easier to read if it appears in table format.  
Convert the text starting with 'It's too far to ride.' and ending with '... to the petrol pump.' on page 4 to a table with TWO columns.  
**NOTE:** Separate the text at the paragraphs. (2)
- 1.10 Format the table on page 4 that contains the text 'I'd have to ...' in the first cell, as follows:
- 1.10.1 Change the width of the columns so that the column on the left is 4 cm wide and the column on the right is 8 cm wide. (2)

1.10.2 Add a new row to the top of the table.

Enter the heading 'Excuses' in the new cell in the first column of the table, and the heading 'Answers' in the second column. (2)

1.10.3 Apply any existing table style/AutoFormat to the table.

**NOTE:** All the cells of the table must be surrounded by a border. (2)

1.10.4 Separate the table so that all the text from 'It's not safe ...' to '... and at home.' (the last three rows) appears in a new table on page 6. (2)

1.11 A code in the footer will make it easy to track official school documents.

1.11.1 Add a footer to the document as shown below.

Brilliant High School BHS 2012/8	1	Please turn over
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**NOTE:**

- The text 'Brilliant High School' appears on the left.
- An automatic page number appears centered.
- The words 'Please turn over' are right-aligned.
- The text 'BHS 2012/8' appears directly below 'Brilliant High School'.
- Do NOT add a border around the footer. (4)

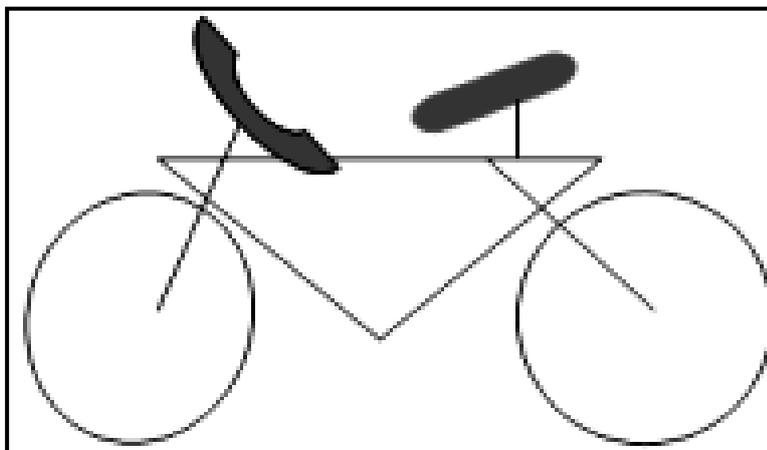
1.11.2 The words 'Please turn over' must NOT appear in the footer on the last page.

(HINT: Use a break.) (4)

1.12 Apply a picture/graphics bullet in the shape of a green ball to all the text found below the heading 'Suggestions' on the last page.

**NOTE:** If you cannot find the green ball in the bullet menu, you may use the **1Ball\_Bal** image file for the bullets. (2)

- 1.13 Ms Ally wants an image of a bicycle, which resembles the one below, on the cover/first page of the **1Safe\_Veilig** document.



Open the document **1Complete\_Voltooi**.

- 1.13.1 Follow the instructions below to complete the image of the bicycle.

- Insert a round autoshape for the back wheel.
- Fill the flattened oval shape (seat) with any fill colour.
- Make sure that the completed bicycle image can be manipulated as ONE object.

(3)

- 1.13.2 Copy your complete or incomplete bicycle image from **1Complete\_Voltooi** and paste it on the cover/first page of the **1Safe\_Veilig** document.

(1)

Save **1Safe\_Veilig** and close all open documents.

[41]

**QUESTION 2**

The team must prepare question cards for a quiz using the questions contained in the **2Quiz\_Vasvra** spreadsheet.

Open the document **2Cards\_Kaarte**.

2.1 Change the paper size of the document to A4. (1)

2.2 Use the mail merge function to create labels as follows:

2.2.1 Use the labels option to create new labels to display EIGHT labels per page, TWO labels across the page and FOUR labels down the page.

Use the following specifications for the labels:

- Height: 6 cm
- Width: 8 cm
- Top and side margins: 1 cm
- Vertical pitch: 7 cm
- Horizontal pitch: 9 cm (5)

2.2.2 Apply the labels to the page. (1)

2.3 Answer the following questions to complete a label to resemble the image below:



(If you were not able to create a label, continue working in the **2Cards\_Kaarte** document to complete the following questions.)

2.3.1 Place the words 'Bicycle Quiz' in WordArt/Fontwork in the first label.

- The WordArt/Fontwork must be in a curved shape with no fill, as shown.
- The WordArt/Fontwork must have a 1.5 pt blue outline. (4)

2.3.2 Insert the image **2Bicycle\_Fiets** found in your examination folder.  
Modify the size of the image to be exactly 2 cm high and 2 cm wide. (2)

2.3.3 Use suitable text wrapping to place the image directly below the WordArt/Fontwork, as shown in the example. (1)

2.4 Use the mail merge function to place the questions in the labels in the **2Cards\_Kaarte** document by following the instructions below.

(If you did not create labels, use the **2Cards\_Kaarte** document to perform the mail merge in QUESTIONS 2.4.1 to 2.4.3.)

2.4.1 Use the spreadsheet **2Quiz\_Vasvra** as the recipient list. (1)

2.4.2 Edit the recipient list so that the merged labels will contain only questions on the topic of bicycles ('Bicycles\_Fietse'), which have not been asked before. (2)

2.4.3 Insert the *Question\_Vraag* merge field below the image into the label. Apply the settings to all the labels. (3)

Save the document **2Cards\_Kaarte**.

2.4.4 Complete the mail merge.

Save the merged document as **2Post\_Pos** in your examination folder. (1)

Save and close all open documents.

**[21]**

**QUESTION 3**

Learners had the opportunity to complete a course to prepare them for their learner's licence examination. Ms Ally kept a record of learner progress in a spreadsheet called **3Learner\_Leerder**.

Work in the **Results\_Uitslae** worksheet of the **3Learner\_Leerder** spreadsheet.

3.1 Format the headings in **row 1** to appear in bold and at an 80° angle. (2)

3.2 Place a double-line border above and below **cells A2:N2**, with no borders between cells. (3)

3.3 Codes to identify learners were placed in **column C**, but the code for **cell C3** was omitted.

Add a function or formula in **cell C3** to form the code by combining the following:

- The second and third letters of the surname in **column A**
- The initial of the name in **column B**

For example, the code for Jennifer Keet in **row 4** is eeJ. (6)

3.4 Add a function to **cell G3** to calculate the percentage as follows:

- Divide the sum of the scores for levels 1, 2 and 3 found in **cells D3:F3** by the sum of the maximum values for these levels, found in **cell G2**.
- Multiply the answer by 100. (4)

3.5 Learners who achieve 85 or more will receive a merit award.

Add an IF-function to **cell H3** that will display the word 'Merit' in the cell if the value in **cell G3** is 85 or more. Nothing should appear in the cell if the value is less than 85.

Copy the function you have added to all the other cells in **column H** to indicate which learners will receive a merit award. (4)

3.6 Different messages should appear in **column I**, based on the level 3 scores (stored in **column F**).

Add a formula in **cell I3** that will:

- Display the word 'Voucher' if the value of **cell F3** is 70 or more
- Display the word 'Repeat' if the value of **cell F3** is less than 60
- Display the word 'Re-register' if no value appears in **cell F3**

Leave **cell I3** empty if none of the above conditions are met. (8)

3.7 The learners will receive gift vouchers depending on the percentage displayed in **column G**.

In **cell J4**, use a Vlookup function to display the value of the gift voucher.

**NOTE:**

- The lookup values are found in the worksheet **Data\_Data**.
- Ensure that the correct values will still be displayed if the function is copied down to the rest of the column.

(6)

3.8 Add a formula to **cell M3** to display the number of days taken to complete the three levels.

(2)

3.9 The average score of all the learners appear in **cell N2**.

Add a function in **cell N3** to display the value in **cell N2** with no decimal places. (Do NOT use the increase/decrease decimal option of the application.)

(2)

3.10 Apply conditional formatting to **column G** to display the data in a red font when a learner's percentage is higher than the average mark in **cell N2**.

(3)

3.11 Modify the graph/chart given in the **Graph\_Grafiek** worksheet as follows:

- Change the type of graph/chart to an XY scatter graph/chart. Use the default options for the type of XY chart.
- Change the major unit on the horizontal axis (X-axis) to 50.
- Add the title 'Number of Learners' to the X-axis.
- Add a green gradient fill to the plot area.
- Add any trend line to the graph/chart.

(6)

Save **3Learner\_Leerder**.

[46]

**QUESTION 4**

The sponsors of the Road Safety Project have allocated prizes for the top performers.

Continue working in the **3Learner\_Leerder** spreadsheet.

4.1 Delete the **Sheet3** worksheet, as it is no longer required. (1)

4.2 Change the name of the **Sheet4** worksheet to **Pie\_Sirkel**. (1)

Work in the **Prizes\_Pryse** worksheet.

4.3 A special prize is awarded to the learner who completed the course in the least number of days.

Use the data in **column M** (*NumberOfDays\_GetalDae*) in the **Results\_Uitslae** worksheet and add a function in **cell B3** in the **Prizes\_Pryse** worksheet to determine the time it took the fastest learner to complete the course. (2)

4.4 Some learners will repeat the levels of the course that they did not complete. There are no values in cells where the results are incomplete.

Add a function in **cell B6** in the **Prizes\_Pryse** worksheet to determine the number of incomplete results for all three levels of the course found in **columns D, E and F** in the **Results\_Uitslae** worksheet. (2)

Use the data in the **Prizes\_Pryse** worksheet to answer QUESTION 4.5 and 4.6.

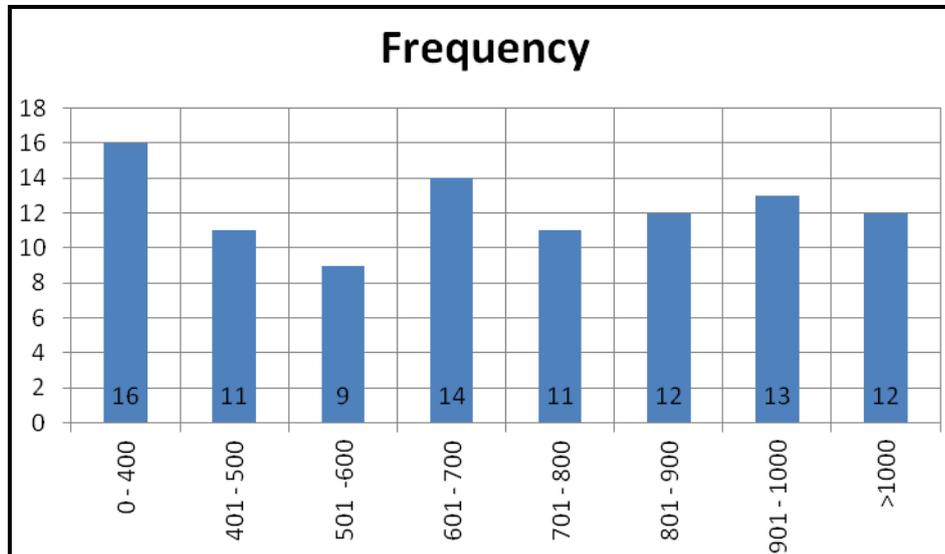
4.5 The winner of the competition is the person who achieved the highest percentage (**column G**) in the least number of days (**column H**).

The names of the top THREE learners should appear in **cells B9, B10 and B11** in the **Prizes\_Pryse** worksheet.

Use any method to determine the winners. (3)

4.6 The frequency table in **cells A17:B24** in the **Prizes\_Pryse** worksheet shows how long it takes learners to complete the course at different intervals.

Use the frequency table to create a column graph/chart as shown below.



- NOTE:**
- The chart/graph must appear between **cells A26:B42**.
  - The title 'Frequency' appears above the graph/chart.
  - Both the major horizontal and major vertical gridlines are displayed.
  - The values for each column appear in the bottom of the column/near the origin (LibreOffice).
  - No legend appears.
  - The labels on the X-axis appear vertically.

(9)

Save and close **3Learner\_Leerder**.

[18]

**QUESTION 5**

A database with possible questions and answers for a quiz has been created.

Work in the **5Quiz\_Vasvra** database.

5.1 Open the **Results\_Uitslae** table.

5.1.1 Adjust the properties of the *Name\_Naam* field so that it will contain a maximum of 40 characters. (1)

5.1.2 Make sure that the *Date\_Datum* field will display the current date correctly every time a new record is added. (3)

5.1.3 Add a field named *Mark\_Punt* between the *Name\_Naam* and *Date\_Datum* fields to store the final mark scored by each learner.

Assign a suitable data type to the *Mark\_Punt* field. (3)

5.1.4 Set a primary key on a suitable field in the table. (2)

5.1.5 Add an input mask/user-defined formatting code to the *Code\_Kode* field to only accept SEVEN digits/characters in the following format: THREE digits followed by a hyphen, followed by another THREE digits, for example 123-123. (3)

Save and close the **Results\_Uitslae** table.

5.2 Open the **Questions\_Vrae** table.

5.2.1 Set the field properties of the *Level\_Vlak* field to make sure that a difficulty level has to be entered for each question (record). (1)

5.2.2 Customise the format of the *Date\_Datum* field so that the date will be entered in the following format: dd/MMM/yyyy (2)

5.3 Create a new query called **qryNew\_Nuut**.

- Use the data from the **Questions\_Vrae** table.
- Display all the questions with a difficulty level of C.
- Display only the *Question\_Vraag* field and the *Level\_Vlak* field.
- Sort the questions alphabetically.

Save and close **qryNew\_Nuut**. (4)

5.4 Open and modify the query called **qryBicycle\_Fiets**.

- Only the questions about bicycles or busses that were not previously used, must be displayed.
- Do NOT display the *Level\_Vlak* field.

**NOTE:** The query will not work if spelling mistakes are made when specifying the criteria.

Save and close **qryBicycle\_Fiets**. (3)

5.5 Open and modify the query called **qryNumber\_Getal**.

Insert a predefined function in the *Level\_Vlak* field to display the total number of questions in the **Questions\_Vrae** table.

Save and close **qryNumber\_Getal**. (3)

5.6 Ms Ally created a form to add new questions to the question bank.

Open the form **frmInput\_Toevoer**.

5.6.1 Change the background colour of the form header to any colour other than a greenish colour. (1)

5.6.2 Display a line to separate the header from the body of the form. (1)

5.6.3 The *Level\_Vlak* field was left out when the form was created.

- Add the field *Level\_Vlak* to the details section of the form.
- Update the label to show the words 'Easy?\_Maklik?'. (2)

Save and close **frmInput\_Toevoer**.

5.7 A question paper and memorandum will be compiled for the quiz.

5.7.1 Create a new report called **rptQ\_V**. The report should:

- Be based on the query called **qryQuestionnaire\_Vraestel**
- Include only the *Question\_Vraag* and *Topic\_Onderwerp* fields
- Be grouped according to the *Topic\_Onderwerp* field (3)

Save and close the **rptQ\_V** report.

5.7.2 Open the report called **rptAnswers\_Antwoorde**.

- Add a field to the report to display the total number of questions for each topic.
- Add your examination number to the report so that it is displayed at the bottom of each page.
- Ensure that the date on which this examination is written will always appear at the bottom of the report.

Save and close **rptAnswers\_Antwoorde**.

(8)

Close the database **5Quiz\_Vasvra**.

[40]

**QUESTION 6**

The team must report on the progress of the learners who have participated in the learner's licence training.

Open the document **6Progress\_Vordering**.

6.1 Insert an 8 pt wide art/patterned border around the page. (3)

6.2 Change the address to resemble the example below.

**B** rilliant High School  
PO Box 34571  
STARFIELD  
1223  
E-mail: admin@brillianths.co.za

6.2.1 Set the indentation/indent so that the address appears at 10 cm. (1)

6.2.2 Apply a dropped capital letter to the B of 'Brilliant' in the address:  
• 5 lines deep  
• 0.1 cm away from the text (3)

6.3 Apply paragraph spacing of 12 pt before to all the text below the address. (2)

6.4 Place a drop-down form field control to the right of the heading 'Reviewed by:'.

**NOTE:** Microsoft Office 2007 and 2010 users: Choose the drop-down form field control from the Legacy Tools menu.

The words 'Select a name' should appear before the name options in the control.

The name options in the list should be:

- G Ally
- Z Mdaka
- G Abrahams (3)

6.5 It is sometimes easier to compare text that appears in columns.

6.5.1 Place the text from 'Dates' to '90' in FOUR equally spaced columns, with lines between the columns. (3)

6.5.2 Place a shape behind the columns with the text from 'Number of learners ...' to '90' as shown below.

Number of learners involved in each phase of the project:

Dates	Level 1	Level 2	Level 3
2011	58	65	70
2012	83	88	90

- NOTE:**
- Fill the shape using any colour of your choice.
  - If you were not able to place the text in columns, place the shape behind the text from 'Number of learners ...' to '90'.
- (3)

6.6 Locate the table.

6.6.1 Insert a caption below the table to read: 'Table1: Number of Learners'. (2)

6.6.2 Insert a formula in the right-hand cell of the bottom row to calculate the average number of learners involved in the project. (2)

Save **6Progress\_Vordering**.

6.7 Open the spreadsheet **6Data\_Data** and work in the **Sheet1** worksheet.

Copy the graph in **Sheet1** of the **6Data\_Data** spreadsheet and paste it as a linked object in the **6Progress\_Vordering** document. (2)

Save and close the spreadsheet **6Data\_Data**.

6.8 Place a field with the file name and path in the footer of the **6Progress\_Vordering** document. (3)

6.9 Locate the table called **Value\_Waarde** in the **5Quiz\_Vasvra** database.

Copy the database table **Value\_Waarde** and paste it in the position indicated in the **6Progress\_Vordering** document. (2)

Save and close all documents and files. [29]

**QUESTION 7**

Work in your examination folder to answer the following questions:

- 7.1 Save **7Road\_Pad** as a spreadsheet template in the **Images\_Prente** folder. (1)
- 7.2 Create a folder called **Walk\_Loop** in the **Images\_Prente** folder. (2)
- 7.3 Create a shortcut to the .jpeg file in your examination folder and place the shortcut in the **Images\_Prente** folder. (2)

**[5]****TOTAL: 200**