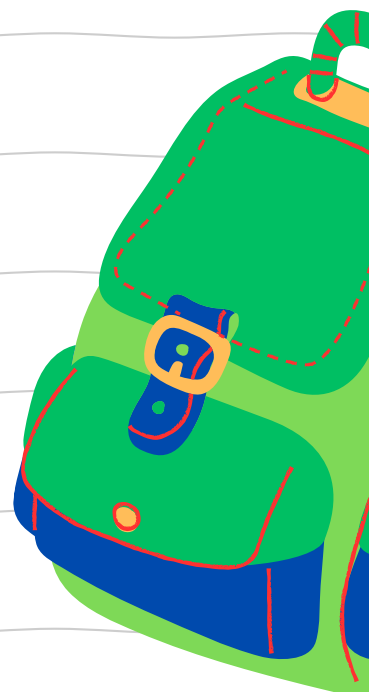


# MATRIC EXAM REVISIONS

MATHEMATICAL LITERACY  
PAPER 1 (2021)



**QUESTION PAPER**





# basic education

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

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 12**

**MATHEMATICAL LITERACY P1**

**NOVEMBER 2021**

**MARKS: 150**

**TIME: 3 hours**

**This question paper consists of 14 pages,  
1 answer sheet and an addendum with 3 annexures.**

**INSTRUCTIONS AND INFORMATION**

1. This question paper consists of FIVE questions. Answer ALL the questions.
2. 2.1 Use the ANNEXURES in the ADDENDUM to answer the following questions:  
  
ANNEXURE A for QUESTION 2.2  
ANNEXURE B for QUESTION 3.2  
ANNEXURE C for QUESTION 4.3  
  
2.2 Answer QUESTION 4.2.2 on the attached ANSWER SHEET.  
  
2.3 Write your centre number and examination number in the spaces provided on the ANSWER SHEET. Hand in the ANSWER SHEET with your ANSWER BOOK.
3. Number the answers correctly according to the numbering system used in this question paper.
4. Start EACH question on a NEW page.
5. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
6. Show ALL calculations clearly.
7. Round off ALL final answers appropriately according to the given context, unless stated otherwise.
8. Indicate units of measurement, where applicable.
9. Diagrams are NOT necessarily drawn to scale, unless stated otherwise.
10. Write neatly and legibly.

**QUESTION 1**

1.1

TABLE 1 below shows the fuel price (in US dollars) in six African countries on 05/06/2019 and 01/03/2021 with the exchange rate per currency on 01/03/2021.

**TABLE 1: FUEL PRICE (IN US DOLLARS) IN SIX AFRICAN COUNTRIES**

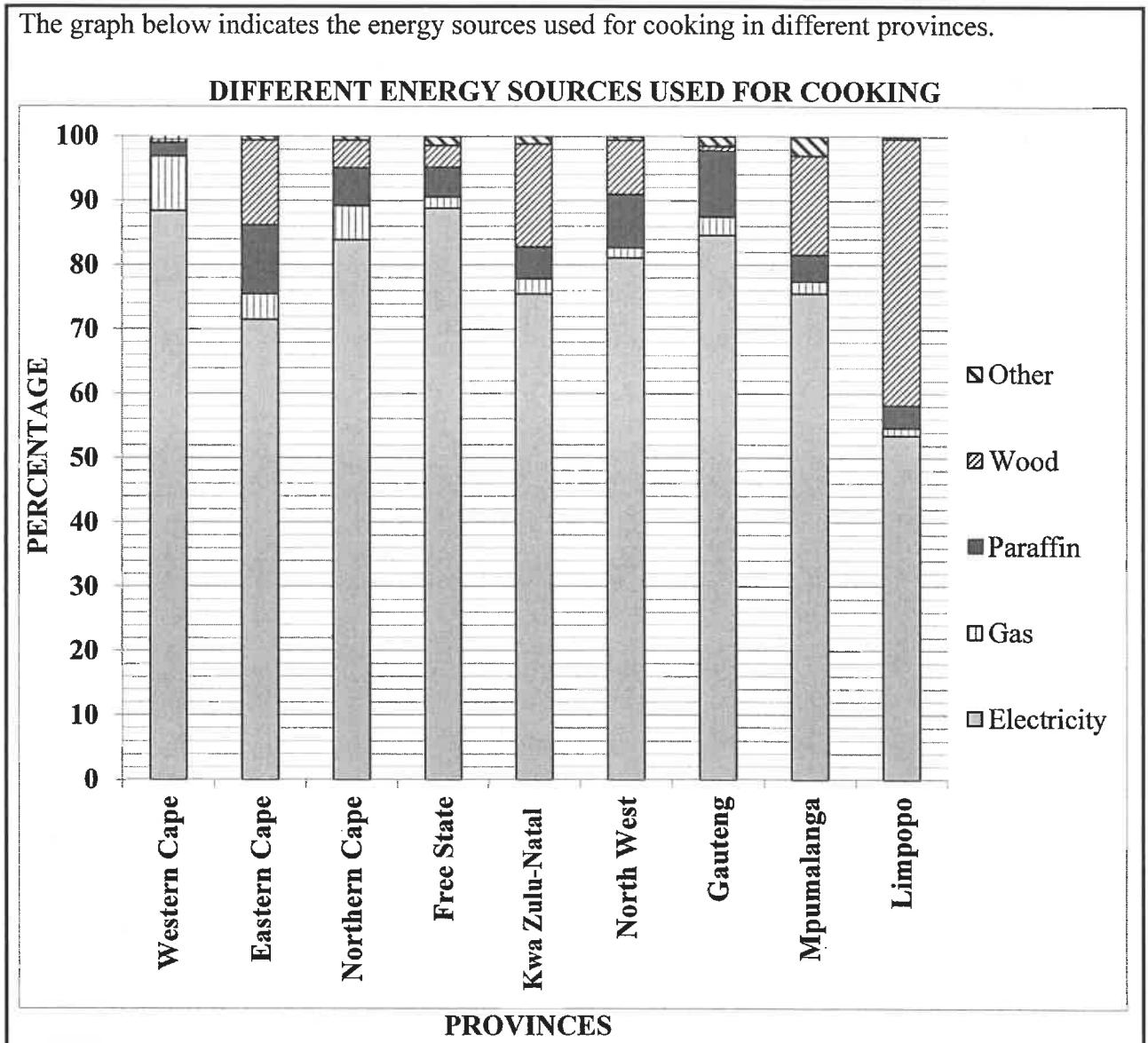
| COUNTRY      | FUEL PRICE<br>IN US\$ |            | CURRENT DOLLAR<br>EXCHANGE<br>RATE/CURRENCY<br>ON 01/03/2021 |
|--------------|-----------------------|------------|--|
|              | 05/06/2019            | 01/03/2021 |  |
| South Africa | 1,04                  | 1,061      | R15,36   |
| Angola       | 0,47                  | 0,254      | 626,41 Angolan kwanzas                                       |
| Zimbabwe     | 0,80                  | 1,258      | \$1,258  |
| Namibia      | 0,88                  | 0,796      | 15,36 Namibian dollars                                       |
| Swaziland    | 0,86                  | 0,87       | 15,35 Swazi emalangenani                                     |
| Botswana     | 0,84                  | 0,732      | 11,14 Botswana pulas   |

[Adapted from [www.globalpetrolprices.com](http://www.globalpetrolprices.com)]

Use TABLE 1 to answer the questions that follow.

- 1.1.1 Calculate the fuel price increase for Zimbabwe from 05/06/2019 to 01/03/2021. (2)
- 1.1.2 Write down the current exchange rate of the Botswana pula to the US dollar in the following format:  
1 Botswana pula = ... US dollars (2)
- 1.1.3 Identify the countries which showed a decrease in the fuel price from 05/06/2019 to 01/03/2021. (2)
- 1.1.4 Arrange, in descending order, the fuel price in US\$ for 01/03/21. (2)
- 1.1.5 The probability of randomly selecting a country that is not South Africa is  $\frac{5}{6}$ .  
Write this probability in decimal form rounded to THREE decimal places. (2)

1.2 The graph below indicates the energy sources used for cooking in different provinces.



[Adapted from [www.statssa.gov.za](http://www.statssa.gov.za)]

Use the graph above to answer the questions that follow.

- 1.2.1 Identify the source of energy that is mostly used for cooking. (2)
- 1.2.2 Name the province that uses the most wood for cooking. (2)
- 1.2.3 The price of paraffin fluctuates. On 3 February 2021 the price was 764,59 c/l.
- (a) Write down (in rand) the cost of ONE litre of paraffin. (2)
- (b) Determine, to the nearest rand, the cost of 12,5 l of paraffin. (2)
- 1.2.4 Name another form of energy that could be used for cooking which could fall under the 'Other' category. (2)

1.3

The following questions were taken from a company's information sheet:

- A. How many hours per day do you spend reading?
- B. How many books have you read in the last 16 weeks?
- C. How many books have you bought in the last 3 months?
- D. Were the books you bought hard copies or soft copies?
- E. Do you believe that we should pay 15% VAT on book prices?

[Adapted from [www.developingquestions.co.za](http://www.developingquestions.co.za)]

Study the information above and answer the questions that follow.



- 1.3.1 Identify the data collection instrument that was used to collect the above information. (2)
  - 1.3.2 Name the next step in the data cycle after the instrument has been completed and collected. (2)
  - 1.3.3 State whether the choices given for question **D** represent categorical or numerical data. (2)
  - 1.3.4 Write the acronym *VAT* in full. (2)
  - 1.3.5 Give an example of a business that will find the above data useful. (2)
- [30]**

## QUESTION 2

2.1

Mrs Smith would like to buy a car but does not have the full cash amount. She downloaded TWO payment options for TWO different cars as shown in TABLE 2 below.

**TABLE 2: PAYMENT OPTIONS FOR TWO DIFFERENT CARS**

| ITEM   | FORD FIGO   | VW POLO   |
|--|---|---|
|  |  |  |
| Retail price/Cash price (including VAT)                | R215 100  | R220 300  |
| Deposit  | 5%  | 0%  |
| Monthly instalment                                     | R2 999,00   | R3 345,00   |
| Residual value   | 30%   | R116 759  |
| Monthly admin fee (not included in monthly instalment) | R69,00  | 2,08% of the monthly instalment   |
| Term agreement   | 72 months   | 48 months   |
| VAT  | 15%   | 15%   |

[Adapted from [www.vw.co.za](http://www.vw.co.za) and [www.ford.co.za](http://www.ford.co.za)]

\*Residual value is the last month's payment.

Use TABLE 2 above to answer the questions that follow.

- 2.1.1 State what type of payment option is shown in TABLE 2. (2)
- 2.1.2 Calculate the deposit amount for the Ford Figo. (2)
- 2.1.3 Write down (in simplified form) the ratio of the term agreement of the Ford Figo to the VW Polo. (2)
- 2.1.4 Which ONE of the two vehicles will be more cost effective in terms of monthly budget? (2)
- 2.1.5 Calculate the total cost of the VW Polo if the monthly instalment remained the same throughout the contract period, except for the final payment.  
You may use the following formula:  
**Total cost**  
**= Total value of monthly instalments + admin fees + residual value** (6)
- 2.1.6 Mrs Smith invested R60 000 at a bank for two years with compound interest. In the first year she received an interest rate of 4,3% per annum while in the second year the interest rate was 5,1% per annum.  
Mrs Smith stated that she would have enough money at the end of the second year to pay the residual value of the Ford Figo.  
Verify, showing ALL calculations, whether her statement is CORRECT. (8)

2.2 ANNEXURE A shows an invoice of the cellphone contracts taken out by Mr Fortune.

Use ANNEXURE A to answer the questions that follow.

- 2.2.1 State the number of cellphone contracts shown on this invoice. (2)
- 2.2.2 Name the cellphone contract which shows the most expensive device. (2)
- 2.2.3 Show how the VAT amount of R142,95 was calculated. (2)
- 2.2.4 Calculate the missing value A. (2)
- 2.2.5 State, in words, the probability of randomly selecting a cellphone contract that is not from ABC. (2)
- [32]**



**QUESTION 3**

3.1

South Africa is in the middle of a potentially wet season as heavy rainfalls continue to fall over large parts of the country, thus improving the country's water situation.

TABLE 3 shows the full storage capacity and dam levels as a percentage of the full storage capacity in different provinces in South Africa on 5 April 2021. The dam-level readings are taken on the same day each week.

**TABLE 3: DAM LEVELS IN DIFFERENT PROVINCES ON 5 APRIL 2021**

| PROVINCE      | NET FSC<br>(MILLION m <sup>3</sup> ) | THIS<br>WEEK<br>(%) | LAST<br>WEEK<br>(%) | LAST<br>YEAR<br>(%) |
|---------------|--------------------------------------|---------------------|---------------------|---------------------|
| Eastern Cape  | 1 823                                | 55                  | <b>D</b>            | 56                  |
| Free State    | 15 657                               | 100                 | 99                  | 77                  |
| Gauteng       | 128                                  | 100                 | 101                 | 101                 |
| KwaZulu-Natal | 4 784                                | 73                  | 73                  | 61                  |
| Limpopo       | 1 480                                | 88                  | 88                  | 70                  |
| Mpumalanga    | 2 539                                | 89                  | 89                  | 75                  |
| North West    | 867                                  | 82                  | 82                  | 71                  |
| Northern Cape | 147                                  | 102                 | 105                 | 95                  |
| Western Cape  | 1 866                                | 52                  | <b>D</b>            | 40                  |

[Adapted from <https://sawx.co.za/state-of-dams>]

Net FSC (million m<sup>3</sup>) = net full storage capacity in million cubic metres

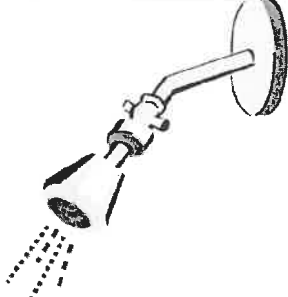

Use TABLE 3 to answer the questions that follow.

- 3.1.1 Determine the date on which the reading of the dam level was taken last week. (2)
- 3.1.2 Write down, in words, the actual value of the net FSC for Gauteng. (2)
- 3.1.3 Identify the province with the third lowest dam level percentage for last year. (2)
- 3.1.4 Determine which province had the highest percentage increase in dam levels from last year to this week. (2)
- 3.1.5 Calculate the missing value **D** if the mean percentage storage capacity for last week was 83%. (5)
- 3.1.6 Determine, as a fraction, the probability of randomly selecting a province with dam levels exceeding 100%, for both this week and last week. (2)
- 3.1.7 Calculate (in m<sup>3</sup>) the actual net FSC of Free State for last week. (3)

3.2

In an average middle-class household in South Africa a 10-minute shower costs almost R13 (or R1,30/min) if you have a normal 15 litre/min shower head. By changing to a low-flow shower head and reducing shower time to 6 minutes, you can reduce this to R4,20 per shower (or 70c/min).

The graph on ANNEXURE B shows more detailed information on water and energy use per shower for a normal shower head and a low-flow shower head.

| GLOSSARY   | SKETCH OF LOW-FLOW SHOWER HEAD  | PICTURE OF A NORMAL SHOWER HEAD   |
|--|---|---|
| A low-flow shower head reduces the rate of water flow. |  |  |

Use ANNEXURE B and the above information to answer the questions that follow.

3.2.1 A four-minute shower uses 1,7 kWh of energy. A ten-minute shower uses 4,3 kWh of energy.

Calculate the percentage increase in kWh of energy used when taking a 4-minute shower compared to taking a 10-minute shower.

You may use the following formula:

$$\text{Percentage increase} = \frac{\text{kWh used for 10 min} - \text{kWh used for 4 min}}{\text{kWh used for 4 min}} \times 100\% \quad (3)$$

3.2.2 Give ONE possible reason why you would advise someone to use a low-flow shower head rather than a normal shower head. (2)

3.2.3 Calculate the range of the number of litres of water used during a 2-minute shower and an 8-minute shower using a normal shower head. (3)  
[26]

**QUESTION 4**

4.1

Bobby lives in India and wants to start his own take-away business. His speciality is chicken biryani. All his ingredients will be bought in bulk.

Bobby intends selling a plate of chicken biryani for eighty rupees (Rs80).


TABLE 4 shows the estimated cost of ingredients used to make 8 plates of chicken biryani.

**TABLE 4: ESTIMATED COST (IN Rs) OF INGREDIENTS USED TO MAKE 8 PLATES OF BIRYANI**

| PRODUCT           | COST( IN Rs) |
|-------------------|--------------|
| 1 kg chicken      | 200          |
| 1 kg basmati rice | 120          |
| Masala powder     | 10           |
| Other ingredients | 62           |

[Adapted from [www.quora.com](http://www.quora.com)]

Each plate of biryani will be packed in a disposable food container that costs Rs2,43 each.

| GLOSSARY   | PICTURE OF A PLATE OF BIRYANI  |
|--|--|
| Biryani is a mixed rice dish made with spices, rice and meat |  |

Use TABLE 4 and the information above to answer the questions that follow.

4.1.1 Determine (in Rs) the price of 520 g of chicken. (3)

4.1.2 Calculate the total cost to make and package a plate of chicken biryani. (5)

4.1.3 Bobby claims that he can make more than 50% profit on one plate of chicken biryani.

Verify, by showing ALL calculations, if his claim is valid. (5)

4.1.4 The exchange rate between South African rands and Indian rupees on 3 March 2021 is given in TABLE 5 below:

**TABLE 5: EXCHANGE RATE**

| SOUTH AFRICAN RAND (ZAR) | INDIAN RUPEES (Rs) |
|--------------------------|--------------------|
| 1                        | 4,8346707          |
| 0,206839                 | 1                  |

[Adapted from [www.xe.com](http://www.xe.com)]

Determine (in ZAR) the price of masala powder. (3)

4.2

Bobby got the idea of selling biryani from his niece Janet who has her own takeaway business in South Africa.

Janet's variable cost to make one plate of chicken biryani is R13,00.  
Her fixed cost amounts to R600.

[Adapted from [www.quora.com](http://www.quora.com)]

Use the information above to answer the questions that follow.

4.2.1 Janet uses the equation below to calculate her total cost:

$$\text{Total cost} = \text{R}600,00 + 13p, \text{ where } p = \text{number of plates.}$$

Use the equation to determine the number of plates sold if the total cost was R1 380,00. (4)

4.2.2 TABLE 6 below shows Janet's total cost and income from selling different numbers of plates of biryani.

**TABLE 6: INCOME AND COST OF SELLING DIFFERENT NUMBERS OF PLATES OF BIRYANI**

| NUMBER OF PLATES | 0   | 10  | 30  | 50    | 70    | 90    | 100   |
|------------------|-----|-----|-----|-------|-------|-------|-------|
| INCOME (R)       | 0   | 250 | 750 | 1 250 | 1 750 | 2 250 | 2 500 |
| COST (R)         | 600 | 730 | 990 | 1 250 | 1 510 | 1 770 | 1 900 |

The income graph has already been drawn on the attached ANSWER SHEET.

Use TABLE 6 and the same grid on the ANSWER SHEET to draw another line graph representing the cost of different numbers of plates of biryani. (3)

4.2.3 Determine the minimum number of plates of biryani that Janet must sell before she starts making a profit. (2)

4.3

Tourism in India is important for the country's economy and it is growing rapidly.

The *Travel and Tourism Competitiveness Report 2019* has ranked India 34th out of 140 countries overall.

ANNEXURE C indicates the number of tourist arrivals in India as well as the countries of origin of these tourist arrivals.

Use ANNEXURE C to answer the questions that follow.

- 4.3.1 Write down, as a decimal, the probability of selecting a tourist that comes from 'Other' countries. (2)
- 4.3.2 State the trend in the number of tourist arrivals in India from 2015 to 2019. (2)
- 4.3.3 For 2019 the total number of tourist arrivals in India was 10,93 million.  
Bobby states that more than 4 500 000 tourists who visited India in 2019 came from Bangladesh.  
Verify, showing ALL calculations, whether his statement is CORRECT. (4)
- 4.3.4 The pie chart shows the total percentage of tourist arrivals in India for 2019 as 99,8%.  
Give a valid reason why this value is not 100%. (2)
- [35]

**QUESTION 5**

- 5.1 Marius, who is 64 years old, earned an annual taxable income of R551 762,00 for the 2019/20 tax year. During the 2019/20 tax year Marius was not a member of any medical fund.

TABLE 7 below shows the tax table for the 2019/20 tax year.

**TABLE 7: TAX RATES FOR 2019/20 TAX YEAR (1 Mar. 2019 to 28 Feb. 2020)**

| TAX BRACKET | TAXABLE INCOME (R)  | RATES OF TAX (R)                               |
|-------------|---------------------|--|
| 1           | 1–195 850           | 18% of taxable income                          |
| 2           | 195 851–305 850     | 35 253 + 26% of taxable income above 195 850   |
| 3           | 305 851–423 300     | 63 853 + 31% of taxable income above 305 850   |
| 4           | 423 301–555 600     | 100 263 + 36% of taxable income above 423 300  |
| 5           | 555 601–708 310     | 147 891 + 39% of taxable income above 555 600  |
| 6           | 708 311–1 500 00    | 207 448 + 41% of taxable income above 708 310  |
| 7           | 1 500 001 and above | 532 041 + 45% of taxable income above 1 500 00 |

[Adapted from [www.sars.gov.za](http://www.sars.gov.za)]

TABLE 8 below shows the tax rebates and medical credits for the 2019/20 tax year.

**TABLE 8: TAX REBATES AND MEDICAL AID CREDITS FOR THE 2019/20 TAX YEAR**

| TAX REBATE   |         |
|--|---------|
| Primary  | R14 220 |
| Secondary (65 and older)                           | R7 794  |
| Tertiary (75 and older)                            | R2 601  |
| MEDICAL CREDITS PER MONTH FOR MEDICAL FUND MEMBERS |         |
| Main member  | R310    |
| First dependent                                    | R310    |
| Each additional dependent                          | R209    |

[Adapted from [www.sars.gov.za](http://www.sars.gov.za)]

Use TABLE 7 and TABLE 8 above to answer the questions that follow.

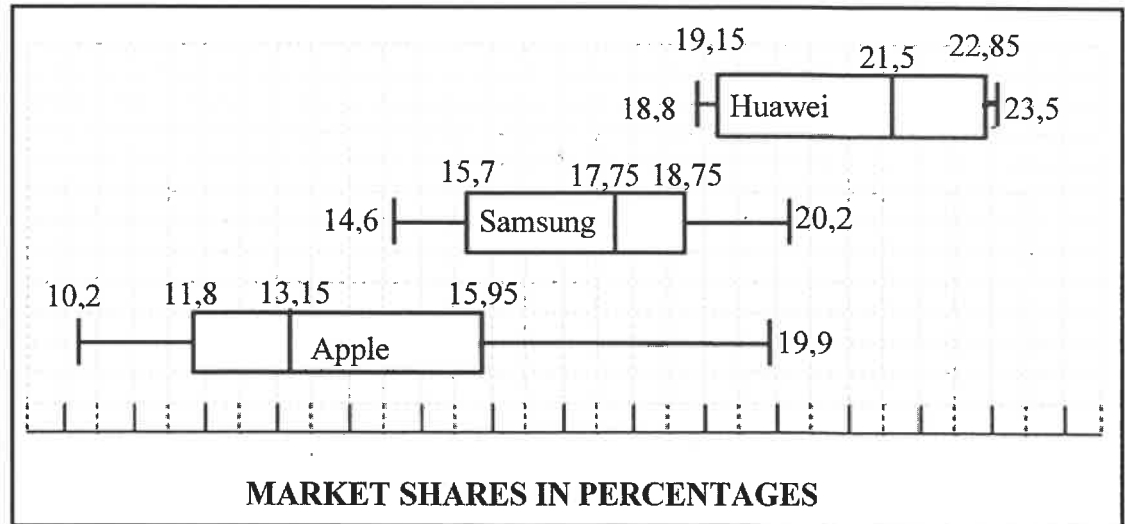
- 5.1.1 Identify which tax bracket Marius falls in, based on his taxable income. (2)
- 5.1.2 Calculate the amount of tax Marius must pay for the 2019/20 tax year. (5)
- 5.1.3 Marius stated that if he had been one year older, he would have saved more than R600 monthly on taxes paid during the 2019/20 tax year.  
Verify, showing ALL calculations whether his statement is CORRECT. (6)
- 5.1.4 Marius is considering joining a medical fund. He plans to include his wife and two grandchildren.  
Determine the total monthly medical credits he would qualify for if he joined a medical fund. (4)

5.2

Marius wants to buy a new laptop. He studied the available data for the three most popular brands of laptops sold in South Africa.

The box and whisker plots below show (in percentages) the spread of the market share of the Samsung, Apple and Huawei laptop brands from the fourth quarter in 2019 to the third quarter in 2020.

**BOX-AND-WHISKER PLOTS SHOWING MARKET SHARE OF THREE LAPTOP BRANDS**



[Adapted from [www.idc.com](http://www.idc.com)]

Use the box and whisker plots above to answer the questions that follow.

- 5.2.1 (a) Write down the name of the most popular laptop brand. (2)
- (b) Hence, write down the 50<sup>th</sup> percentile of the brand identified in QUESTION 5.2.1(a). (2)
- 5.2.2 Calculate the interquartile range (IQR) of the Samsung brand. (4)
- 5.2.3 A data analyst claims that 75% of the dataset of Apple was less than 16%. Explain whether or not his statement is valid. (2)

[27]

**TOTAL: 150**

**ANSWER SHEET**

**QUESTION 4.2.2**

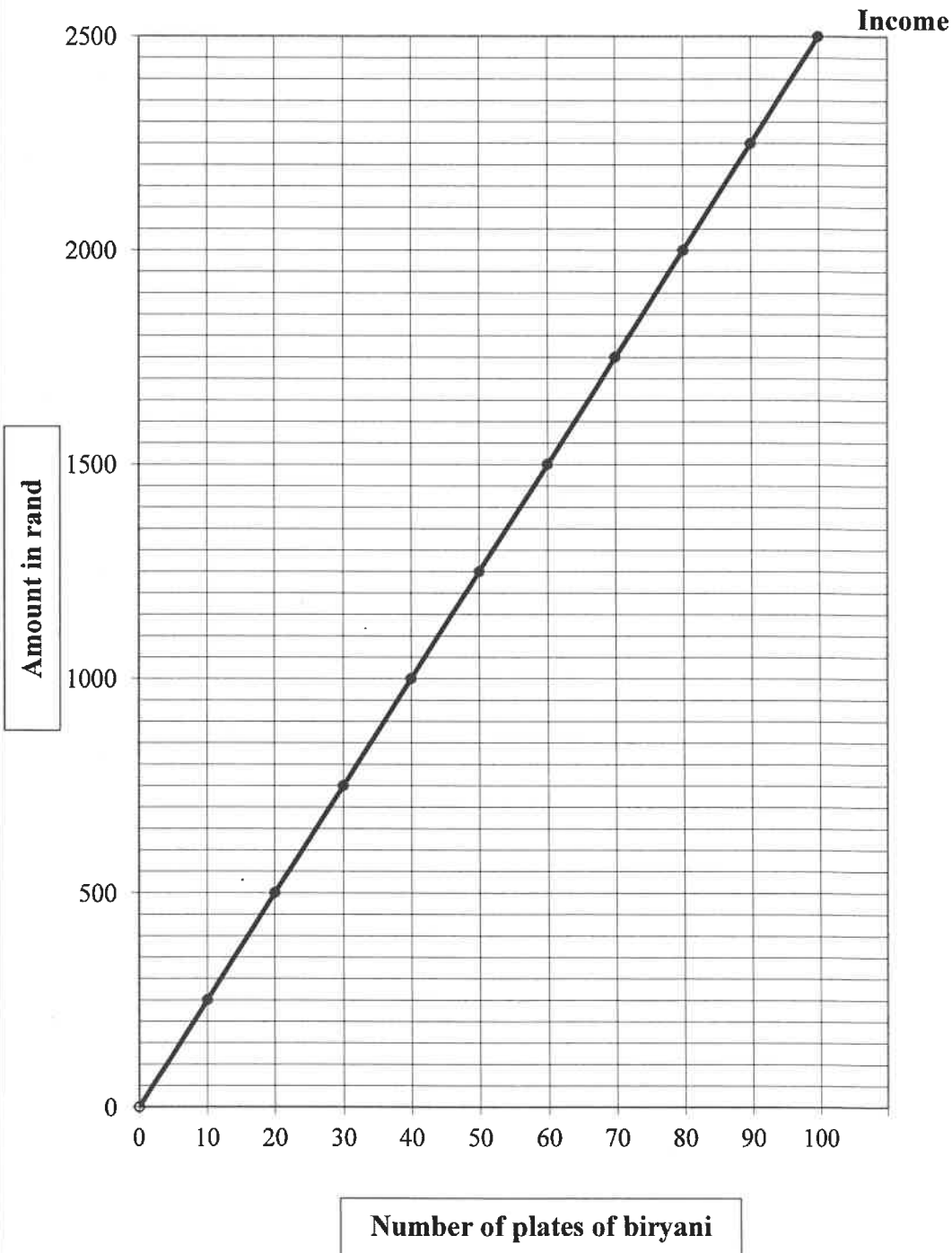
**CENTRE NUMBER:**

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**EXAMINATION NUMBER:**

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**JANET'S BUSINESS GRAPH FOR PLATES OF BIRYANI**







# basic education

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

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 12**

**MATHEMATICAL LITERACY P1**

**ADDENDUM**

**NOVEMBER 2021**

**This addendum consists of 4 pages with 3 annexures.**

**ANNEXURE A****QUESTION 2.2****CELLPHONE CONTRACT INVOICE**

Cellphone Account

Customer Care  
Tel: +27083245 Tel:123(free from cellphone)  
E-mail: [customercare@ABC.co.za](mailto:customercare@ABC.co.za)  
Website: [www.abc.co.za](http://www.abc.co.za)

Mr SJ Fortune  
5 Second Avenue  
Zone 2  
Smelderado  
2463

Invoice date 17-01-2021  
Account Number BA4536782C  
Payment Method Direct Debit  
Due Date 01-03-2021  
Arrears R0,00

**Summary of charges for your ABC plan:****ABC Made For You S**

Contract date: 13-03-2019 to 12-03-2021

| Description        | From       | To         | Amount excl. VAT |
|--------------------|------------|------------|------------------|
| Device             | 17-12-2020 | 16-01-2021 | 260,87           |
| ABC made for You S | 17-01-2021 | 16-02-2021 | 94,78            |

**Subtotal: (excl. 15% VAT)****R 355,65****ABC made for You XS**

Contract date: 13-05-2019 to 12-05-2021

| Description         | From       | To         | Amount excl. VAT |
|---------------------|------------|------------|------------------|
| Device              | 17-12-2020 | 16-01-2021 | R173,91          |
| ABC made for You XS | 17-01-2021 | 16-02-2021 | R86,09           |

**Subtotal: (excl. 15% VAT)****R260,00****Your ABC Choice 5GB**

Contract date: 19-08-2019 to 18-08-2021

| Description         | From       | To         | Amount excl. VAT |
|---------------------|------------|------------|------------------|
| Device              | 17-12-2020 | 16-01-2021 | R165,22          |
| Your ABC Choice 5GB | 17-01-2021 | 16-02-2021 | R172,13          |

**Subtotal: (excl. 15% VAT)****R337,35****VAT total 15%****R142,95**

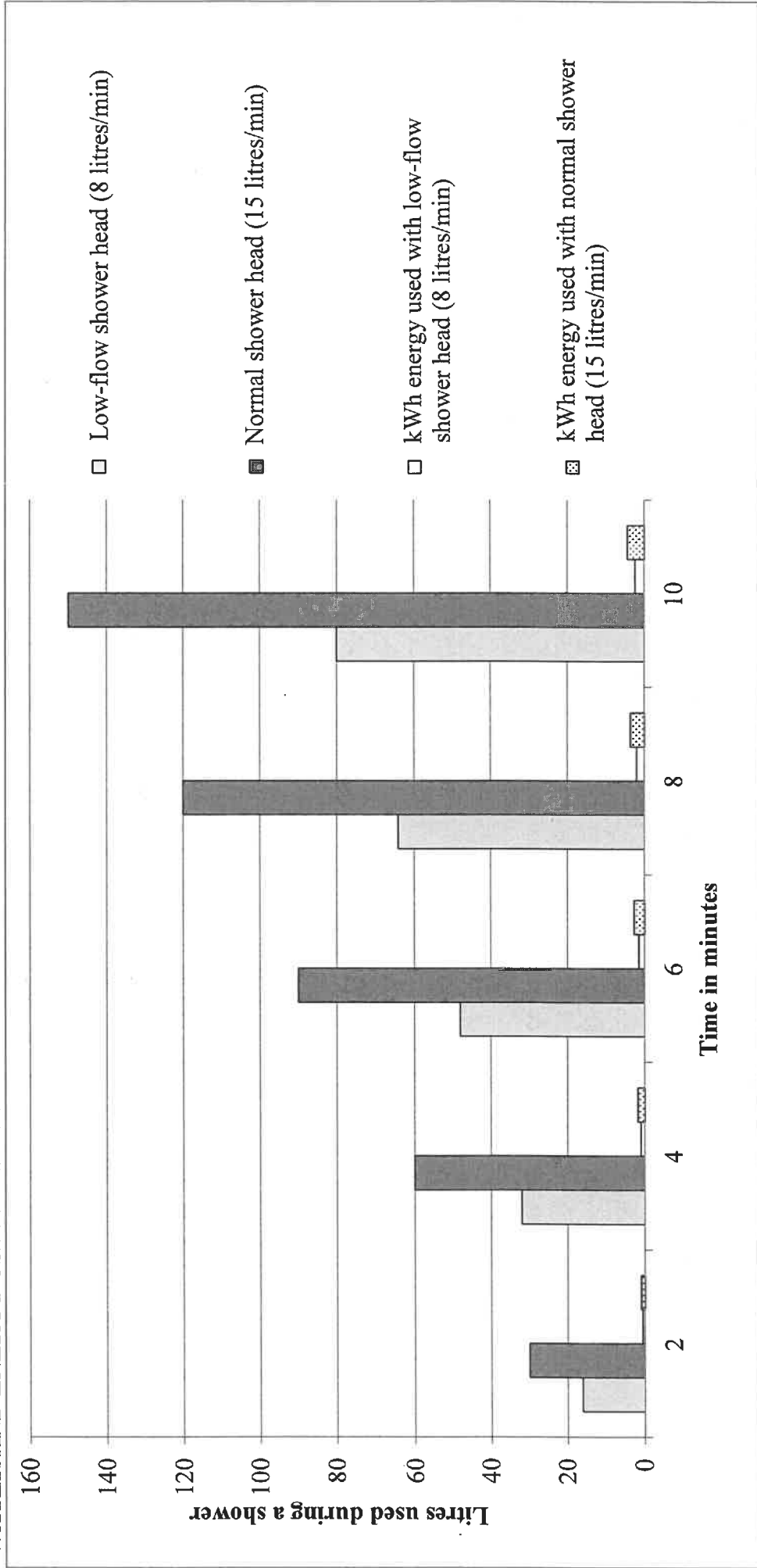
Total amount due for current period (VAT incl.)

**A**

**ANNEXURE B**

**QUESTION 3.2**

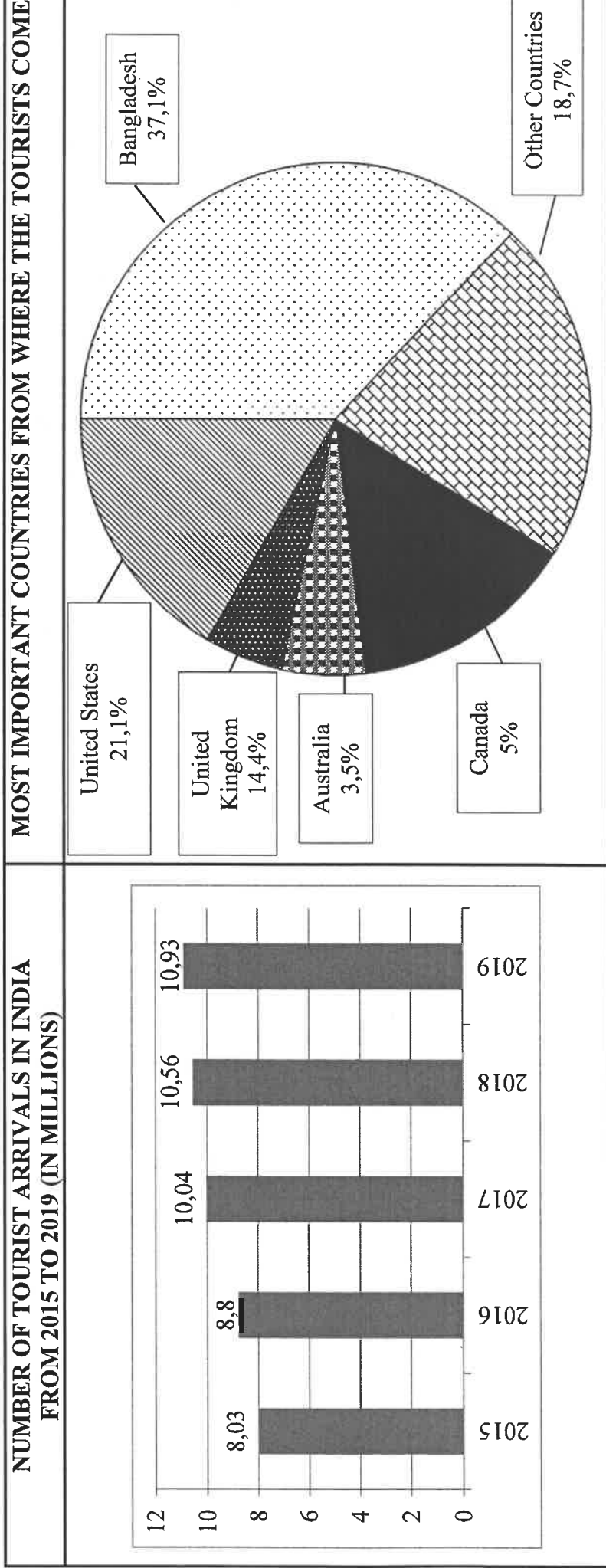
**WATER AND ENERGY USE PER SHOWER FOR NORMAL AND LOW-FLOW SHOWER HEADS**



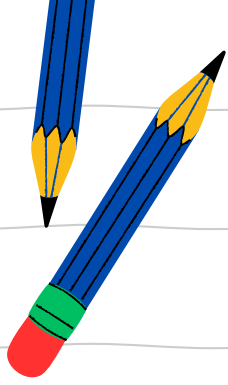
[Adapted from <https://www.poweroptimal.com/cost-shower-south-africa/>]

**ANNEXURE C**

**QUESTION 4.3**



[Adapted from [www.statista.com](http://www.statista.com)]

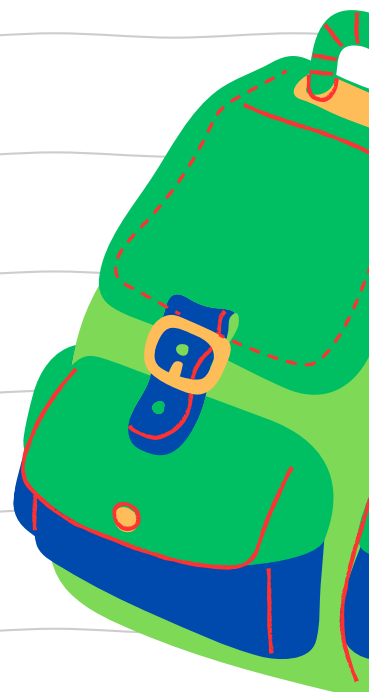


# MATRIC EXAM REVISIONS

MATHEMATICAL LITERACY  
PAPER 1 (2021)



**ANSWER PAPER**





# basic education

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

## **NATIONAL SENIOR CERTIFICATE/ NASIONALE SENIOR SERTIFIKAAT**

**GRADE/GRAAD 12**

**MATHEMATICAL LITERACY P1/  
WISKUNDIGE GELETERDHEID V1**

**NOVEMBER 2021**

**MARKING GUIDELINES/NASIENRIGLYNE**

**MARKS/PUNTE: 150**

| <b>Symbol/Kode</b> | <b>Explanation/Verduideliking</b>   |
|--------------------|---|
| <b>M</b>           | Method/ <i>Metode</i>   |
| <b>MA</b>          | Method with accuracy/ <i>Metode met akkuraatheid</i>  |
| <b>CA</b>          | Consistent accuracy/ <i>Volgehoue akkuraatheid</i>  |
| <b>A</b>           | Accuracy/ <i>Akkuraatheid</i>   |
| <b>C</b>           | Conversion/ <i>Herleiding</i>   |
| <b>S</b>           | Simplification/ <i>Vereenvoudiging</i>  |
| <b>RT</b>          | Reading from a table/graph/document/diagram/ <i>Lees vanaf tabel/grafiek/dokument/diagram</i>                                 |
| <b>SF</b>          | Correct substitution in a formula/ <i>Korrekte vervanging in 'n formule</i>   |
| <b>O</b>           | Opinion/Explanation/ <i>Opinie/Verduideliking</i>   |
| <b>P</b>           | Penalty, e.g. for no units, incorrect rounding off, etc./ <i>Penalisasie, bv. vir geen eenhede, verkeerde afronding, ens.</i> |
| <b>R</b>           | Rounding off/ <i>Afronding</i>  |
| <b>NPR</b>         | No penalty for rounding/ <i>Geen penalisasie vir afronding nie</i>  |
| <b>AO</b>          | Answer only/ <i>Slegs antwoord</i>  |
| <b>MCA</b>         | Method with consistent accuracy/ <i>Metode met volgehoue akkuraatheid</i>   |
| <b>RCA</b>         | Rounding consistent with accuracy/ <i>Afronding met volgehoue akkuraatheid</i>  |

**These marking guidelines consist of 20 pages.  
Hierdie nasienriglyne bestaan uit 20 bladsye.**

**NOTE:**

- If a candidate answers a question TWICE, only mark the FIRST attempt.
- If a candidate has crossed out (cancelled) an attempt to a question and NOT redone the solution, mark the crossed out (cancelled) version.
- Consistent accuracy (CA) applies in ALL aspects of the marking guidelines; however it stops at the second calculation error.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalise for every extra item presented.

**LET WEL:**

- *As 'n kandidaat 'n vraag TWEE KEER beantwoord, sien slegs die EERSTE poging na.*
- *As 'n kandidaat 'n antwoord van 'n vraag doodtrek (kanselleer) en nie oordoen nie, sien die doodgetrekte (gekanselleerde) poging na.*
- *Volgehoue akkuraatheid (CA) word in ALLE aspekte van die nasienriglyne toegepas, dit hou op by die tweede berekeningsfout.*
- *Wanneer 'n kandidaat aflesings vanaf 'n grafiek, tabel, uitlegplan en kaart geneem en ekstra antwoorde gee, penaliseer vir elke ekstra item.*

| <b>QUESTION/VRAAG 1 [30 MARKS/PUNTE] ANSWER ONLY FULL MARKS</b> |  |   |                |
|---|--|---|----------------|
| <b>Q/V</b>  | <b>Solution/Oplissing</b>  | <b>Explanation/Verduideliking</b>   | <b>T&amp;L</b> |
| 1.1.1   | \$1,258 - \$0,80 ✓MA<br>=\$0,458 ✓CA   | 1MA subtracting different prices<br>1CA simplification provided<br>1 value is correct<br>(2)            | F<br>L1<br>*   |
| 1.1.2   | 11,14 Botswana pula/ <i>Botswana pula</i> = \$1<br>$1 \text{ Botswana Pula} = \frac{1}{11,14} \checkmark \text{MA}$<br>= 0,089767 US dollar ✓A | 1MA dividing by exchange rate<br><br>1A simplification<br><b>No penalty for correct rounding</b><br>(2) | F<br>L1<br>*   |
| 1.1.3   | ✓RT ✓RT<br>Angola; Namibia or/of Botswana  | 1RT first correct country<br>1RT second correct country<br><b>Any two</b><br>(2)                        | F<br>L1<br>*   |
| 1.1.4   | ✓RT<br>1,258; 1,061; 0,87; 0,796; 0,732; 0,254 ✓A  | 1RT all correct values<br>1A correct order<br>(2)   | D<br>L1<br>*   |
| 1.1.5   | 0,833 ✓✓A  | 2A correct value<br>(2)   | P<br>L1<br>*   |

| Q/V          | Solution/Oplissing   | Explanation/Verduideliking  | T&L          |
|--------------|--|---|--------------|
| 1.2.1        | Electricity/Elektrisiteit ✓✓A  | 2A correct source<br>(2)  | D<br>L1      |
| 1.2.2        | Limpopo / LP / Lim / L-Province/Provinsie ✓✓A  | 2A province<br>(2)  | D<br>L1      |
| 1.2.3<br>(a) | Cost of 1 ℓ of paraffin/Koste van 1 ℓ paraffien<br><br>764,59 ÷ 100 ✓MA<br>= R7,6459/ℓ ✓A<br>= R7,65/ℓ   | 1MA dividing by 100<br>1A simplification<br><b>NPR</b><br>(2)                                     | F<br>L1<br>* |
| 1.2.3<br>(b) | Cost of paraffin/Koste van paraffien<br><br>R7,65/ℓ × 12,5ℓ ✓MCA<br>= R95,625<br>= R96,00 ✓R   | <b>CA from Question 1.2.3 (a)</b><br><br>1MCA multiply by 12,5ℓ<br><br>1R correct rounding<br>(2) | F<br>L1      |
| 1.2.4        | Solar power <b>OR</b> Coal <b>OR</b> Charcoal <b>OR</b> Wind turbines <b>OR</b> Hydropower <b>OR</b> Generator <b>OR</b> Gel <b>OR</b> Paper <b>OR</b> Straw <b>OR</b> Leaves <b>OR</b> Animal manure (dung) <b>OR</b> Spirits <b>OR</b> Corn stalk ✓✓A<br><br><i>Sonkrag <b>OF</b> Steenkool <b>OF</b> Houtskool <b>OF</b> Windturbines <b>OF</b> Hidrokrag <b>OF</b> Kragopwekker <b>OF</b> Gel <b>OF</b> Papier <b>OF</b> Strooi <b>OF</b> Blare <b>OF</b> Dieremis (mis) <b>OF</b> Spiritus <b>OF</b> Mieliestronk</i> | 2A correct source<br><b>Any one</b><br>(2)  | D<br>L1<br>* |
| 1.3.1        | Survey/Questionnaire/Interview/Google forms<br><i>Opname/Vraelys/Onderhoud/Google vorms</i> ✓✓A  | 2A correct instrument<br>(2)  | D<br>L1      |
| 1.3.2        | ✓✓A<br>Classifying, preparation, organising, sorting data/<br><i>Klassifisering, voorbereiding, organiseren, sortering van data</i>  | 2A correct step<br><b>Any one word to describe the step</b><br>(2)                                | D<br>L1      |
| 1.3.3        | Categorical data/Kategorieese data ✓✓A   | 2A correct answer<br>(2)  | D<br>L1      |







| Q/V   | Solution/Oplossing  | Explanation/Verduideliking   | T&L   |
|-------|---|--|---|
| 2.1.6 | <p>Interest for year 1/<i>Rente vir jaar 1</i></p> $R60\,000,00 \times \frac{4,3}{100} \quad \checkmark\text{MA}$ $= R2\,580,00 \quad \checkmark\text{A}$ <p>Amount end of year 1/<i>Bedrag aan die einde van jaar 1</i></p> $= R60\,000 + R2\,580$ $= R62\,580,00 \quad \checkmark\text{CA}$ <p>Interest for year 2/<i>Rente vir jaar 2</i></p> $62\,580,00 \times \frac{5,1}{100} \quad \checkmark\text{MCA}$ $= R3\,191,58$ <p>Amount end of year 2/<i>Bedrag aan die einde van jaar 2</i></p> $= R62\,580,00 + R3\,191,58$ $= R65\,771,58 \quad \checkmark\text{CA}$ <p>Residual value of Ford Figo</p> $R215\,100 \times 30\% \quad \checkmark\text{M}$ $= R64\,530 \quad \checkmark\text{CA}$ <p>She is correct/<i>Sy is korrek</i> <math>\checkmark\text{O}</math></p> <p style="text-align: center;"><b>OR/OF</b></p> $R60\,000,00 \times \frac{\checkmark\text{M} \quad \checkmark\text{MA} \quad \checkmark\text{MA}}{100} \times \frac{104,3}{100} \times \frac{105,1}{100} \quad \checkmark\text{M}$ $= R65\,771,58 \quad \checkmark\text{CA}$ <p>Residual value of Ford Figo</p> $R215\,100 \times 30\% \quad \checkmark\text{M}$ $= R64\,530 \quad \checkmark\text{CA}$ <p>She is CORRECT/<i>Sy is KORREK</i> <math>\checkmark\text{O}</math></p> | <p>1MA calculating percentage</p> <p>1A simplification</p> <p>1CA adding interest</p> <p>1MCA calculating percentage</p> <p>1CA simplification</p> <p>1M calculating 30%</p> <p>1CA simplification</p> <p>1O conclusion.</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1MA adding percentage</p> <p>1MA adding percentage</p> <p>1M calculating percentage</p> <p>1M compound calculation</p> <p>1CA simplification</p> <p>1M calculating 30%</p> <p>1CA simplification</p> <p>1O conclusion.</p> | <p>F</p> <p>L4</p> <p>*</p> <p style="text-align: right;">(8)</p> |

| Q/V   | Solution/Oplissing   | Explanation/Verduideliking   | T&L     |
|-------|--|--|---------|
| 2.2.1 | 3/Three/Drie ✓✓A   | 2A correct number<br>(2)   | F<br>L1 |
| 2.2.2 | ABC made For You S <b>OR/OF</b> made For You S ✓✓A   | 2A correct device<br>(2)   | F<br>L1 |
| 2.2.3 | VAT calculation/ <i>BTW-berekening</i><br>$= (R355,65 + R260 + R337,35) \times 15\%$ ✓M<br>$= R953,00 \times 15\%$ ✓A<br>$= R142,95$   | 1M adding correct values<br>1A multiplying by 15%<br>Accept individual correct calculations: R53,3475<br>R39,00 R50,60<br>(2)  | F<br>L1 |
| 2.2.4 | $A = R355,65 + R260 + R337,35 + R142,95$ ✓MA<br>$= R1\ 095,95$ ✓CA<br><br><b>OR/OF</b><br><br>$A = R953 \times 1,15$ ✓MA<br>$= R1\ 095,95$ ✓CA<br><br><b>OR/OF</b><br><br>$A = R953 + R142,95$ ✓MA<br>$= R1\ 095,95$ ✓CA | <b>CA from Question 2.2.3</b><br>1MA adding correct values<br>1CA simplification<br><br><b>OR/OF</b><br><br>1MA multiplying by 1,15<br>1CA simplification<br><br><b>OR/OF</b><br><br>1MA adding correct values<br>1CA simplification<br><b>AO</b><br>(2) | F<br>L2 |
| 2.2.5 | Impossible /Not possible/No chance/Zero percent/Zero/Zero out of three ✓✓A<br><i>Onmoontlik/Nie moontlik nie/Geen kans/Nul persent/Nul/Nul uit drie</i>  | 2A correct term<br>(2)   | P<br>L2 |
|       |  | [32]   |         |

| <b>QUESTION/VRAAG 3 [26 MARKS/PUNTE]</b> |  |  |                |
|--|--|--|----------------|
| <b>Q/V</b>                               | <b>Solution/Oplissing</b>  | <b>Explanation/Verduideliking</b>  | <b>T&amp;L</b> |
| 3.1.1                                    | ✓A ✓A<br>29 March 2021/29 Maart 2021<br><b>OR/OF</b> 29/03/2021  | 1A correct day<br>1A correct month and year<br>(2)   | D<br>L1        |
| 3.1.2                                    | ✓✓A<br>One hundred and twenty eight million cubic metres/<br><i>Een honderd agt en twintig miljoen kubieke meter</i>   | 2A number in words<br><b>NPU</b><br>(2)  | D<br>L1<br>*   |
| 3.1.3                                    | KwaZulu-Natal <b>OR/OF</b> KZN ✓✓A   | 2A correct province<br>(2)   | D<br>L1        |
| 3.1.4                                    | Free State/ <i>Vrystaat</i> /FS ✓✓A  | 2A Free State<br>(2)   | D<br>L2        |
| 3.1.5                                    | Mean/ <i>Gemiddeld</i><br>$83 = \frac{D + D + 73 + 82 + 88 + 89 + 99 + 101 + 105}{9}$ ✓SF<br>✓MA<br>$83 = \frac{2D + 637}{9}$ ✓CA<br>$2D + 637 = 747$<br>$2D = 110$ ✓MA<br>$D = 55$ ✓CA<br><br><b>OR/OF</b><br>✓SF<br>$2D + 637 = 83 \times 9$ ✓MA<br>$2D + 637 = 747$ ✓CA<br>$2D = 110$ ✓MA<br>$D = 55$ ✓CA | 1SF substitution mean correctly<br>1MA dividing by 9<br><br>1CA simplification<br><br>1MA dividing by 2<br>1CA simplification<br><br><b>OR/OF</b><br>1SF substitution mean correctly<br>1MA multiplying by 9<br>1CA simplification<br>1MA dividing by 2<br>1CA simplification<br>(5) | D<br>L3        |
| 3.1.6                                    | Probability/ <i>Waarskynlikheid</i><br>$= \frac{1}{9}$ ✓A<br>✓A  | 1A numerator<br><br>1A denominator<br>(2)  | P<br>L2<br>*   |

| Q/V   | Solution/Oplissing  | Explanation/Verduideliking  | T&L          |
|-------|---|---|--------------|
| 3.1.7 | $\begin{aligned} & \checkmark A \\ & = 15\,657\,000\,000 \times \frac{99}{100} \quad \checkmark MA \\ & = 15\,500\,430\,000 \quad \checkmark CA \end{aligned}$  | 1A correct value in millions<br>1MA multiplying by %<br>1CA simplification<br>Accept 15 500,43 million<br>(3)   | D<br>L2<br>* |
| 3.2.1 | Percentage increase/ <i>Persentasie toename</i><br>$\begin{aligned} & \checkmark SF \\ & = \frac{4,3 - 1,7}{1,7} \times 100\% \quad \checkmark A \\ & = 152,94\% \quad \checkmark CA \end{aligned}$   | 1SF correct substitution<br>1A correct denominator<br>1CA simplification<br><b>NPR</b><br>(3)   | D<br>L2      |
| 3.2.2 | Save energy (kWh)/ <i>Bespaar energie (kWh)</i> $\checkmark\checkmark A$<br><p style="text-align: center;"><b>OR/OF</b></p> Save water (kℓ)/ <i>Bespaar water (kℓ)</i> $\checkmark\checkmark A$<br><p style="text-align: center;"><b>OR/OF</b></p> Save money/ <i>Spaar geld</i> $\checkmark\checkmark A$   | 2A reason<br>(2)  | D<br>L4      |
| 3.2.3 | Range of the number of litres/ <i>Omvang van die getal liter</i><br>$\begin{aligned} & \checkmark RT \quad \checkmark RT \\ & 120 \ell - 30 \ell \\ & = 90 \ell \quad \checkmark CA \end{aligned}$ <p style="text-align: center;"><b>OR/OF</b></p> Difference in time/ <i>Verskil in tyd</i><br>8 min – 2 min<br>Range/ <i>Omvang</i> = 6 min $\checkmark RT$<br>6 min $\times$ 15 litres/min $\checkmark M$<br>= 90 litres $\checkmark CA$ | <b>Accept litres from 28 – 32</b><br>1RT minimum<br>1RT maximum<br>1CA simplification<br><p style="text-align: center;"><b>OR/OF</b></p> 1RT difference in time<br>1M multiply by 15 min<br>1CA simplification<br><b>NPU</b><br>(3) | D<br>L3      |
|       |   | <b>[26]</b>   |              |

| <b>QUESTION/VRAAG 4 [35 MARKS/PUNTE]</b> |  |   |                |
|--|--|---|----------------|
| <b>Q/V</b>                               | <b>Solution/Oplissing</b>  | <b>Explanation/Verduideliking</b>   | <b>T&amp;L</b> |
| 4.1.1                                    | Cost of 520 g/ <i>Koste van 520 g</i><br>$520 \text{ g} = \frac{520}{1\,000} \times \text{Rs}200$ $= \text{Rs}104$ <p style="text-align: center;"><b>OR/OF</b></p> Unit cost per gram/ <i>Eenheidsprys per gram</i><br>$\text{Rs } 200 \div 1\,000 \text{ g}$ $= \text{Rs } 0,20/\text{g}$ $\text{Rs } 0,20/\text{g} \times 520 \text{ g}$ $= \text{Rs } 104$              | 1C conversion<br>1MA multiplying by correct value<br>1CA simplification<br><p style="text-align: center;"><b>OR/OF</b></p> 1C conversion<br>1MA multiplying by correct value<br>1CA simplification<br>(3) | F<br>L2<br>*   |
| 4.1.2                                    | Total cost of one plate/ <i>Totale koste van een bord</i><br>$(\text{Rs}200 + \text{Rs}120 + \text{Rs}10 + \text{Rs}62) \div 8$ $= \frac{\text{Rs } 392}{8}$ $= \text{Rs}49$ <p>Total cost including food container/<br/><i>Totale koste voedselhouer ingesluit</i></p> $= \text{Rs}49 + \text{Rs}2,43$ $= \text{Rs}51,43$ <p style="text-align: center;"><b>OR/OF</b></p> | 1A total ingredients<br>1MA divide by 8<br>1CA simplification<br><br>1MA adding the container<br>1CA simplification<br><p style="text-align: center;"><b>OR/OF</b></p>                                    | F<br>L3        |

| Q/V   | Solution/Oplossing   | Explanation/Verduideliking   | T&L |
|-------|--|--|-----|
| 4.1.2 | <p>Total cost of 8 plates/<i>Totale koste van 8 borde</i></p> $= \text{Rs}200 + \text{Rs}120 + \text{Rs}10 + \text{Rs}62 + (\text{Rs}2,43 \times 8)$ <p>✓A</p> $= 392 + (2,43 \times 8) \quad \checkmark \text{MA}$ $= \text{Rs}411,44 \quad \checkmark \text{CA}$ <p>Total cost of one plate/<i>Totale koste van een bord</i></p> $= \frac{411,44}{8} \quad \checkmark \text{MA}$ $= \text{Rs}51,43 \quad \checkmark \text{CA}$ <p style="text-align: center;"><b>OR/OF</b></p> <p>Total cost of one plate/<i>Totale koste van een bord</i></p> $= \frac{\text{Rs}200}{8} + \frac{\text{Rs}120}{8} + \frac{\text{Rs}10}{8} + \frac{\text{Rs}62}{8} \quad \checkmark \text{MA}$ $= \text{Rs}25 + \text{Rs}15 + \text{Rs}1,25 + \text{Rs}7,75 \quad \checkmark \text{CA}$ $= \text{Rs}49 \quad \checkmark \text{A}$ <p>Total cost including food container/<i>Totale koste insluitend koshouer</i></p> $= \text{Rs}49 + \text{Rs}2,43 \quad \checkmark \text{MA}$ $= \text{Rs}51,43 \quad \checkmark \text{CA}$ | <p>1A total ingredients<br/>1MA adding the container</p> <p>1CA simplification</p> <p>1MA divide by 8<br/>1CA simplification</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1MA divide by 8<br/>1CA simplification<br/>1A total ingredients</p> <p>1MA adding<br/>1CA simplification</p> | (5) |



| Q/V   | Solution/Oplossing   | Explanation/Verduideliking   | T&L             |
|-------|--|--|-----------------|
| 4.1.3 | <p>Profit of one plate/<i>Wins van een bord</i><br/>                     ✓MA<br/> <math>Rs80 - Rs51,43 = Rs28,57</math> ✓CA</p> <p>% profit of one plate/<i>% wins van een bord</i><br/> <math>= \frac{Rs28,57}{Rs51,43} \times 100\%</math> ✓M<br/> <math>= 55,55\%</math> ✓CA</p> <p>Bobby's claim is VALID/<i>Bobby se eis is GELDIG</i> ✓O</p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓✓A<br/> <math>Rs51,43 \times 1,5</math> ✓MA<br/> <math>= Rs77,15</math> ✓CA</p> <p><math>Rs80,00 &gt; Rs77,15</math></p> <p>Bobby's claim is VALID/<i>Bobby se eis is GELDIG</i> ✓O</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Percentage income/<i>Persentasie inkomste</i><br/> <math>= \frac{Rs80}{Rs51,43} \times 100\%</math> ✓MA<br/> <math>= 155,55\%</math> ✓CA</p> <p>Percentage profit/<i>Persentasie wins</i><br/> <math>155,55\% - 100\%</math> ✓M<br/> <math>= 55,55\%</math> ✓CA</p> <p>Bobby's claim is VALID/<i>Bobby se eis is GELDIG</i> ✓O</p> | <p><b>CA from Question 4.1.2</b></p> <p>1MA subtracting CP from SP<br/>                     1CA simplification</p> <p>1M percentage calculation<br/>                     1CA simplification</p> <p>1O conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>2A calculating 1,5<br/>                     1MA multiplying<br/>                     1CA simplification</p> <p>1O conclusion</p> <p style="text-align: center;"><b>OF/OR</b></p> <p>1MA percentage calculation<br/>                     1CA simplification</p> <p>1M subtracting values<br/>                     1CA simplification</p> <p>1O conclusion</p> | <p>F<br/>L4</p> |

| Q/V   | Solution/Oplissing   | Explanation/Verduideliking  | T&L          |
|-------|--|---|--------------|
| 4.1.3 | <p style="text-align: center;"><b>OF/OR</b></p> <p>50% of cost price/50% van die kosprys</p> <p>= Rs 51,43 x 50% ✓MA<br/>                     = Rs 25,72 ✓CA</p> <p>Profit per plate/Wins per bord</p> <p>= Rs 80 – Rs 51,43 ✓M<br/>                     = Rs 28,57 ✓CA</p> <p>Rs 28,57 &gt; Rs 25,72</p> <p>Bobby's claim is VALID/Bobby se eis is GELDIG ✓O</p>  | <p style="text-align: center;"><b>OF/OR</b></p> <p>1MA percentage calculation<br/>                     1CA simplification</p> <p>1M subtracting values<br/>                     1CA simplification</p> <p>1O conclusion</p> <p style="text-align: right;">(5)</p>   |              |
| 4.1.4 | <p>Cost of masala/Koste van masala<br/>                     ✓RT</p> <p>= <math>\frac{\text{Rs}10}{\text{Rs}1} \times 0,206839</math> ✓MA<br/>                     = R2,06839<br/>                     = R2,07 ✓A</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Cost of masala/Koste van masala</p> <p>= <math>\frac{\text{Rs}10}{4,834670}</math> ✓RT ✓MA<br/>                     = R2,06839<br/>                     = R2,07 ✓A</p> | <p>1RT correct values<br/>                     1MA multiplying by<br/>                     0,260839</p> <p>1A simplification</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1RT correct values<br/>                     1MA dividing<br/>                     1A simplification</p> <p style="text-align: right;">(3)</p> | F<br>L2      |
| 4.2.1 | <p>Cost (R) = 600,00 + 13 <math>p</math>, where <math>p</math> = number of plates.<br/>                     ✓SF</p> <p>1 380,00 = 600,00 + 13<math>p</math><br/>                     1 380,00 – 600,00 = 13<math>p</math> ✓MA<br/>                     ✓CA<br/>                     R780 = 13 <math>p</math><br/> <math>p</math> = 60 plates ✓CA</p>   | <p>1SF correct substitution</p> <p>1MA subtracting 600<br/>                     1CA simplification<br/>                     1CA simplification<br/> <b>AO</b></p> <p style="text-align: right;">(4)</p>   | F<br>L2<br>* |

| Q/V              | Solution/Oplissing  | Explanation/Verduideliking | T&L |      |      |      |      |    |     |          |     |     |     |      |      |      |      |                  |   |    |    |    |    |    |     |          |     |     |     |      |      |      |      |  |         |
|------------------|---|----------------------------|-----|------|------|------|------|----|-----|----------|-----|-----|-----|------|------|------|------|------------------|---|----|----|----|----|----|-----|----------|-----|-----|-----|------|------|------|------|--|---------|
| 4.2.2            | <div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <p style="text-align: center;"><b>Janet's Business graphs for plates of Biryani</b></p> <table border="1" style="margin: 10px auto; width: 80%;"> <thead> <tr> <th>Number of Plates</th> <th>0</th> <th>10</th> <th>30</th> <th>50</th> <th>70</th> <th>90</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Cost (R)</td> <td>600</td> <td>730</td> <td>990</td> <td>1250</td> <td>1510</td> <td>1770</td> <td>1900</td> </tr> </tbody> </table> </div> <p>1A Start point (0;600)<br/>                     1A End point (100; 1 900)<br/>                     1A Correct straight line</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Number of Plates</th> <th>0</th> <th>10</th> <th>30</th> <th>50</th> <th>70</th> <th>90</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Cost (R)</td> <td>600</td> <td>730</td> <td>990</td> <td>1250</td> <td>1510</td> <td>1770</td> <td>1900</td> </tr> </tbody> </table> | Number of Plates           | 0   | 10   | 30   | 50   | 70   | 90 | 100 | Cost (R) | 600 | 730 | 990 | 1250 | 1510 | 1770 | 1900 | Number of Plates | 0 | 10 | 30 | 50 | 70 | 90 | 100 | Cost (R) | 600 | 730 | 990 | 1250 | 1510 | 1770 | 1900 |  | F<br>L2 |
| Number of Plates | 0   | 10                         | 30  | 50   | 70   | 90   | 100  |    |     |          |     |     |     |      |      |      |      |                  |   |    |    |    |    |    |     |          |     |     |     |      |      |      |      |  |         |
| Cost (R)         | 600   | 730                        | 990 | 1250 | 1510 | 1770 | 1900 |    |     |          |     |     |     |      |      |      |      |                  |   |    |    |    |    |    |     |          |     |     |     |      |      |      |      |  |         |
| Number of Plates | 0   | 10                         | 30  | 50   | 70   | 90   | 100  |    |     |          |     |     |     |      |      |      |      |                  |   |    |    |    |    |    |     |          |     |     |     |      |      |      |      |  |         |
| Cost (R)         | 600   | 730                        | 990 | 1250 | 1510 | 1770 | 1900 |    |     |          |     |     |     |      |      |      |      |                  |   |    |    |    |    |    |     |          |     |     |     |      |      |      |      |  |         |

(3)

| Q/V   | Solution/Oplissing   | Explanation/Verduideliking   | T&L          |
|-------|--|--|--------------|
| 4.2.3 | 50 plates ✓✓RT   | 2RT number of plates<br>(2)  | F<br>L2<br>* |
| 4.3.1 | $= \frac{18,7}{100} \quad \checkmark\text{RT}$ $= 0,187 \quad \checkmark\text{CA}$   | 1RT reading 18,7<br>1CA simplification<br><b>AO</b><br>(2)   | P<br>L2<br>* |
| 4.3.2 | As the time increase the number of tourists visiting India increases./ ✓✓A<br><i>Soos die tyd verbygaan, neem die aantal toeriste wat Indië besoek toe.</i>  | 2A increases<br><div style="border: 1px solid black; padding: 2px; display: inline-block;">Accept increase</div><br>(2)                            | D<br>L4      |
| 4.3.3 | Number of tourist from Bangladesh/Aantal toeriste uit Bangladesj<br>$10,93 \text{ million} \times \frac{37,1}{100} \quad \checkmark\text{M}$ $= 4,05503 \text{ million/miljoen} \quad \checkmark\text{CA}$ $= 4\ 055\ 030$ <p>His statement is NOT CORRECT/Sy bewering is NIE KORREK NIE. ✓O</p> <p style="text-align: center;"><b>OR/OF</b></p> Number of tourist from Bangladesh/Aantal toeriste uit Bangladesj<br>$= \frac{4,5 \text{ million/mi ljoen}}{10,93 \text{ million/mi ljoen}} \times 100\% \quad \checkmark\text{M}$ $= 41,1\% \quad \checkmark\text{CA}$ <p>Then 37,1% is less than the 41,1%</p> <p>His statement is NOT CORRECT/Sy bewering is NIE KORREK NIE. ✓O</p> | 1RT correct percentage<br>1M multiply with percentage provided one value is correct<br>1CA simplification<br>1O conclusion<br>1O conclusion<br>(4) | D<br>L4<br>* |



| <b>QUESTION/VRAAG 5 [27 MARKS/PUNTE]</b> |   |  |                |
|--|---|--|----------------|
| <b>Q/V</b>                               | <b>Solution/Oplissing</b>   | <b>Explanation/Verduideliking</b>  | <b>T&amp;L</b> |
| 5.1.1                                    | <p>Tax Bracket 4/<i>Belastinghakkie 4</i> ✓✓A</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Tax Bracket/<i>Belastinghakkie</i><br/>                     R423 301 – R555 600 ✓✓A</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>100 263 + 36% of taxable income above 423 300 ✓✓A</p>   | <p>2A correct tax bracket</p> <p style="text-align: right;">(2)</p>  | F<br>L2        |
| 5.1.2                                    | <p>Annual tax/<i>Jaarlikse belasting</i></p> <p>R423 301 – R555 600<br/>                     100 263 + 36% of taxable income above 423 300</p> <p>R100 263 + 36% (R551 762 – R423 300) ✓SF<br/>                     R100 263 + (36% × R128 462) ✓CA</p> <p>R100 263 + R46 246,32<br/>                     = R146 509,32 ✓CA</p> <p>Tax payable/<i>Belasting betaalbaar</i></p> <p>= R146 509,32 – R14 220 ✓MCA</p> <p>= R132 289,32 ✓CA</p> | <p><b>CA from Question 5.1.1</b></p> <p>1SF substitution<br/>                     1CA simplification</p> <p>1CA tax before rebate</p> <p>1MCA subtracting rebate</p> <p>1CA simplification</p> <p style="text-align: right;">(5)</p> | F<br>L3        |

| Q/V   | Solution/Oplissing  | Explanation/Verduideliking   | T&L   |
|-------|---|--|---|
| 5.1.3 | <p>Present monthly tax payable<br/> <math>= R132\,289,32 \div 12</math> ✓MA<br/> <math>= R11\,024,11</math></p> <p>Annual tax payable one year older<br/> <math>R132\,289,32 - R7\,794</math> ✓A<br/> <math>= R124\,495,32</math> ✓MA</p> <p>Monthly tax payable one year older<br/> <math>R124\,495,32 \div 12</math><br/> <math>= R10\,374,61</math> ✓CA</p> <p>Monthly tax savings<br/> <math>R11\,024,11 - R10\,374,61</math><br/> <math>= R649,50</math> ✓CA</p> <p>His statement is CORRECT/Sy bewering is KORREK ✓O</p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓RT</p> <p><math>R132\,289,32 - R124\,495,32</math><br/> <math>= R7\,794</math> ✓✓A</p> <p><math>R7\,794 \div 12</math> ✓MA<br/> <math>= R649,50</math> ✓CA</p> <p>His statement is CORRECT/Sy bewering is KORREK. ✓O</p> | <p><b>CA from Question 5.1.2</b></p> <p>1MA dividing by 12 and simplify</p> <p>1A correct rebate – R7 794<br/>                     1MA subtracting rebate and simplification</p> <p>1CA simplification</p> <p>1CA simplification</p> <p>1O conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1RT correct values<br/>                     2A correct rebate – R7 794</p> <p>1MA dividing by 12</p> <p>1CA simplification</p> <p>1O conclusion</p> | <p>F<br/>                     L4<br/>                     *</p> |

| Q/V          | Solution/Oplissing   | Explanation/Verduideliking   | T&L          |
|--------------|--|--|--------------|
| 5.1.3        | <p style="text-align: center;"><b>OR/OF</b></p> <p>Annual tax payable one year older/<i>Jaarlikse belasting betaalbaar een jaar ouer</i></p> <p>= R146 509,32 - R14 220 - R7 794 ✓MA</p> <p>= R124 495,32 ✓A</p> <p>Annual tax payable/<i>Jaarlikse belasting betaalbaar</i></p> <p>= R132 289,32</p> <p>Monthly tax savings/<i>Maandelikse belasting besparing</i></p> $= \frac{\overset{\check{M}}{R132\,289,32 - R124\,495,32}}{12} \check{MA}$ <p>= R649,50 ✓CA</p> <p>His statement is CORRECT/<i>Sy bewering is KORREK.</i> ✓O</p> | <p style="text-align: center;"><b>OR/OF</b></p> <p>1MA subtracting rebate and simplification<br/>1A correct tax payable</p> <p>1M simplification<br/>1MA dividing by 12<br/>1CA simplification<br/>1O conclusion</p> <p style="text-align: right;">(6)</p> |              |
| 5.1.4        | <p>Medical credits/<i>Mediese krediete:</i></p> <p style="text-align: center;">✓RT</p> <p>R310 + R310 + (R209 × 2) ✓MA</p> <p>R310 + R310 + R418 ✓MA</p> <p>= R1 038 ✓CA</p>   | <p>1RT correct values<br/>1MA multiplying with 2</p> <p>1MA adding all the values<br/>1CA simplification</p> <p><b>AO</b></p> <p style="text-align: right;">(4)</p>  | F<br>L3      |
| 5.2.1<br>(a) | Huawei ✓✓RT  | 2RT correct brand  | D<br>L2<br>* |
| 5.2.1<br>(b) | 21,5% ✓✓RT   | <b>CA from Question 5.2.1 (a)</b><br>2RT correct percentage  | D<br>L2<br>* |
| 5.2.2        | <p>IQR = Q3 – Q1/<i>IKV</i> = K3 – K1 ✓MA</p> <p style="text-align: center;">✓RT ✓RT</p> <p>= 18,75 – 15,7</p> <p>= 3,05 ✓CA</p>   | <p>1MA concept of IQR<br/>1RT correct value (Q3)<br/>1RT correct value (Q1)</p> <p>1CA simplification</p> <p style="text-align: right;">(4)</p>  | D<br>L3<br>* |



| Q/V   | Solution/Oplissing   | Explanation/Verduideliking   | T&L   |
|-------|--|--|---|
| 5.2.3 | <p>Quartile 3 is at 15,95 which includes 75% of the dataset.<br/> <i>Kwartiel 3 is by 15,95 wat 75% van die datastel insluit. ✓○</i><br/>                     The statement is VALID/<i>Die bewering is GELDIG. ✓○</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p>15,95% &lt; 16% which is Quartile 3 which includes 75% of the dataset.<br/> <i>15,95% &lt; 16% wat Kwartiel 3 is wat 75% van die datastel insluit ✓○</i><br/>                     The statement is VALID/<i>Die bewering is GELDIG ✓○</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p>The 75<sup>th</sup> percentile is below the 16% on the Box and whisker plot.<br/> <i>Die 75ste persentiel is onder die 16% op die Mond en snor diagram. ✓○</i><br/>                     The statement is VALID/<i>Die bewering is GELDIG ✓○</i></p> | <p>10 explanation<br/>                     10 conclusion</p> <p style="text-align: right;">(2)</p> | <p>D<br/>                     L4<br/>                     *</p> |
|       |  | [27]   |   |
|       |  | <b>TOTAL/TOTAAL: 150</b>   |   |