# SENIOR CERTIFICATE EXAMINATIONS/
# NATIONAL SENIOR CERTIFICATE EXAMINATIONS
## *SENIORSERTIFIKAAT-EKSAMEN/*
## *NASIONALE SENIORSERTIFIKAAT-EKSAMEN*

## MATHEMATICAL LITERACY P1/*WISKUNDIGE GELETTERDHEID V1*

## 2023

## MARKING GUIDELINES/*NASIENRIGLYNE*

**MARKS/*PUNTE*: 150**

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

**These marking guidelines consist of 19 pages.**
*Hierdie nasienriglyne bestaan uit 19 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.
- Rounding is an independent mark.
- General principle of marking, if the candidate makes one mistake he loses one mark.
- A conclusion mark can only be given if relevant calculations precedes it.

*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 egter 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.*
- *Afronding tel as 'n afsonderlike punt.*
- *Die algemene beginsel van merk as 'n leerder een fout maak verloor hy een punt.*
- *'n Gevolgtrekkingspunt kan slegs gegee word indien relevante berekeninge dit voorgaan.*

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| *1.1.1 | ✓A ✓A<br>Hire-purchase / online credit (Mobicred) / Cash price.<br><br>**OR/*OF***<br><br>*Huurkoop / aanlyn krediet (Mobicred) / Kontant prys.*<br>(Any two/*Enige twee*) <div align="right">(2)</div> | 1A first method<br>1A second method | F<br>L1 |
| *1.1.2 | You buy the generator at a monthly installment.<br>Only after your final installment you own the generator.<br>*Jy koop die generator teen 'n maandelikse paaiement.*<br>*Slegs na die laaste paaiement het jy die generator* ✓✓A *gekoop.* <div align="right">(2)</div> | 2A correct explanation | F<br>L1 |
| 1.1.3 | 14,75% ✓✓RT <div align="right">(2)</div> | 2RT correct percentage | F<br>L1 |
| 1.1.4 | Total cost / *totale koste*<br>✓MA<br>R1 006 × 12<br>= R12 072 ✓A <div align="right">(2)</div> | 1MA multiply by 12<br>1A simplification | F<br>L1 |

**QUESTION/*VRAAG* 1 [31 MARKS/*PUNTE*]  ANSWER ONLY FULL MARKS**

| Q/*V* | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| 1.1.5 | Discount / *afslag* <br><br> $= R10\ 999 \times \dfrac{12,5}{100}$ ✓MA <br> $= R1\ 374,88$ ✓A | 1MA calculating 12,5% <br> 1A amount discount <br> Accept: R1 374,90 **OR** R1 375 <br><br> (2) | F <br> L1 |
| 1.1.6 | Simple Interest / *Enkelvoudige rente* ✓✓A | 2A simple interest <br><br> (2) | F <br> L1 |
| * <br> 1.2.1 | Ascending order / *Stygende orde* <br> ✓RT <br> $-17,4\%;\ -6,7\%;\ -1,1\%;\ 10,1\%;\ 42,7\%;\ 90,1\%;$ <br> $122,2\%$ ✓A | 1RT correct values <br><br> 1A ascending order <br><br> (2) | D <br> L1 |
| * <br> 1.2.2 | Sport skirt / *Sport rompie* ✓✓RT | 2RT correct item <br><br> (2) | D <br> L1 |
| 1.2.3 | Difference / *Verskil* <br><br> $= R171,00 - R89,95$ ✓MA <br> $= R81,05$ ✓A | 1MA subtracting correct values <br> 1A difference <br><br> (2) | F <br> L1 |
| 1.2.4 | Total cost / *totale koste* <br><br> $= R267,92 + R214,17 + R248,70 + R267,78$ <br> $+ R87,75 + R48,58 + R89,95$ ✓MA <br><br> $= R1\ 224,85$ ✓CA | 1MA adding correct values <br><br> 1CA simplification <br><br> CA only if 1 value omitted <br><br> (2) | F <br> L1 |
| * <br> 1.2.5 | Shinpads / *Skeenskud* <br><br> **OR/*OF*** ✓✓A <br><br> Hockey shoes / *Hokkieskoene*. <br> (*Any hockey related equipment*) | 2A correct item <br><br> (2) | D <br> L1 |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| * 1.3.1 (a) | EC / *OK* ✓✓RT | 2RT correct province (2) | D L1 |
| * 1.3.1 (b) | WC / *WK* ✓✓RT | 2RT correct province (2) | D L1 |
| 1.3.2 | No province / *Geen provinsie* <br><br> **OR/*OF*** ✓✓A <br><br> No Mode / *Geen Modus* | 2A correct solution (2) | D L1 |
| * 1.3.3 | Number of unemployed people / *Aantal werklose mense* <br><br> ✓RT <br> = 35,6% × 918 000  ✓MA <br><br> = 326 808  ✓CA | 1RT correct % <br><br> 1MA calculating percentage <br><br> 1CA simplification (3) | D L1 |
| | | **[31]** | |

| **QUESTION/***VRAAG* **2 [33 MARKS/***PUNTE***]** | | | |
|---|---|---|---|
| **Q/V** | **Solution/***Oplossing* | **Explanation/***Verduideliking* | **T&L** |
| *<br>2.1.1 | 125 Bossie Street, Upington  ✓✓RT | 2RT correct address<br><br>(2) | F<br>L1 |
| 2.1.2 | Excluding VAT / *BTW uitgesluit*<br><br>  ✓RT<br>= R900 × $\frac{100}{115}$ ✓MA<br>= R782,6086957<br>= R782,61 ✓A<br><br>**OR/***OF*<br><br>  ✓RT<br>= $\frac{R900}{1,15}$ ✓MA<br>= R782,6086957<br>= R782,61 ✓A<br><br>**OR/***OF*<br><br>VAT / *BTW*<br>  ✓RT<br> = R900 × (15 ÷ 115)<br> = R117,39 ✓A<br><br>Excluding VAT / *BTW uitgesluit*<br><br>= R900 – R117,39<br>= R782,61 ✓A | <br><br>1RT correct accommodation<br>1MA excluding calculation<br><br>1A simplification<br><br>**OR / ***OF*<br><br>1RT correct accommodation<br>1MA excluding calculation<br><br>1A simplification<br><br>**OR / ***OF*<br><br><br>1RT correct accommodation<br><br>1A vat amount<br><br><br><br>1A simplification<br><br>(3) | F<br>L2 |
| 2.1.3 | ✓MA<br>**C** = R75 040,00 – (R28 800+ R5 760 + R6 480)<br>    = R34 000  ✓CA<br><br>**OR / ***OF*<br><br>**C** = R850 × 2 × 20 ✓MA<br>    = R34 000 ✓CA | 1MA correct values used<br>1CA simplification<br><br>**OR / ***OF*<br><br>1MA multiply correct values<br>1CA simplification<br><br>(2) | F<br>L1 |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| *<br>2.1.4 | Number of guests in 4-bed rooms /<br>*Aantal gaste in 'n 4-bed-kamers*<br><br>= R34 000 ÷ (2 × 850)  ✓MCA<br>= 20  ✓CA<br><br>Number of guests in 2-bed rooms<br>*Aantal gaste in 'n 2-bed-kamers*<br><br>= R28 800 ÷ (2 × 900)  ✓MCA<br>= 16 ✓CA<br><br>Ratio/*Verhouding* = 16 : 20   ✓MCA<br>          = 4 : 5 ✓CA<br><br>**OR / *OF***<br><br>Number of guests in 2-bed rooms<br>*Aantal gaste in 'n 2-bed-kamers*<br><br>= R28 800 ÷ (2 × 900) ✓MA<br>= 16  ✓CA<br><br>Number of guest in 4-bed rooms<br>*Aantal gaste in 'n 4-bed-kamers*<br>    ✓MCA<br>= 36 – 16 = 20 ✓CA<br><br>Ratio/*Verhouding* = 16 : 20 ✓MCA<br>          = 4 : 5 ✓CA<br><br>**OR / *OF***<br>   ✓MA       ✓MA<br>= $\dfrac{R28\,800}{900} : \dfrac{R34\,000}{850}$  ✓MA<br>          ✓A<br>Ratio/*Verhouding* = 32 : 40   ✓MCA<br>          = 4 : 5 ✓CA | **CA from Question 2.1.3**<br><br><br>1MCA dividing and multiplying<br>1CA simplification<br><br><br><br>1MCA dividing and multiplying<br>1CA number of guest in 2-bed<br>  accommodation<br><br><br>1MCA ratio in correct order<br>1CA simplification<br><br>**OR / *OF***<br><br><br><br><br>1MA dividing and multiplying<br>1CA simplification<br><br><br><br><br>1MCA subtracting<br>1CA number of guest in 2-bed<br>  accommodation<br>1MCA ratio in correct order<br>1CA simplification<br><br>**OR / *OF***<br>1MA left ratio<br>1MA right ratio<br>1MA concept of ratio<br>1A correct value<br>1MCA ratio in correct order<br>1CA simplification<br>            (6) | F<br>L3 |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|-----|----------------------|------------------------------|-----|
| 2.1.5 | Cost of one guest in 2-bed room/ *Koste van een gas in 'n 2-bed-kamer* $= 2 \times R900$ $= R1\ 800$ ✓A | | F L4 |
| | | 1A total accommodation | |
| | Refund for cancelling before check-in time/ *Terugbetaling vir kanselasie voor inteken tyd* | | |
| | $= \dfrac{75}{100} \times R1\ 800$ ✓MCA | 1MCA calculating 75% | |
| | $= R1\ 350$ ✓CA | 1CA simplification | |
| | Refund for cancelling after check-in time/ *Terugbetaling vir kanselasie na inteken tyd* $\dfrac{25}{100} \times R1\ 800$ $= R450$ ✓CA | 1CA second accommodation refund | |
| | Refund for meals/*Terugbetaling vir etes* $= 4 \times R80 + 4 \times R90$ $= R680$ ✓A | 1A meal refund | |
| | Total Refund/ *Totale Terugbetaling* $= R450 + R1\ 350 + R680$ $= R2\ 480$ ✓CA | 1CA total refund | |
| | Statement is CORRECT/*Stelling is KORREK* ✓O | 1O conclusion | |
| | **OR / *OF*** | **OR / *OF*** | |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| 2.1.5 | First Person / *Eerste person*<br>Total cost of room / *Totale koste van kamer*<br>= 2 × R900<br>= R1 800  ✓A<br><br>Refund for accommodation / *Terugbetaling van akkomodasie*<br>= R1 800 × 25%<br>= R450  ✓MCA<br><br>Total refund / *Totale terugbetaling*<br>= R450 + 2 (R80,00 + R90)<br>= R790  ✓CA<br><br>Second Person / *Tweede Persoon*<br>Total cost of room / *Totale koste van kamer*<br>= 2 × R900<br>= R1 800<br><br>Refund for accommodation / *Terugbetaling vir akkomodasie*<br>= R1 800 × 75%<br> = R1 350<br><br>Total refund / *Totale terugbetaling*<br>= R1 350 + 2 (R80,00 + R90)  ✓A<br>= R1 690  ✓CA<br><br>Total refund for both people / *Totale terugbetaling vir beide persone*<br>= R1 690 + R790 = R2 480  ✓CA<br><br> Statement is CORRECT / *Stelling is KORREK.* ✓O | 1A total accommodation<br><br><br><br>1MCA calculating 25%<br><br><br><br>1CA simplification<br><br><br><br><br><br><br><br><br><br><br><br><br><br><br>1A total meals<br>1CA total refund<br><br><br><br>1CA total refund for 2 people<br><br><br>1O conclusion<br><div align="right">(7)</div> | |
| *<br>2.2.1 | Cost to fix the vehicle / *Koste om voertuig reg te maak*<br><br>= R50 000 + R22 000 + R3 682,50 + R450  ✓MA<br>= R76 132,50  ✓CA | 1MA adding all values<br>1CA correct answer<br>**AO**<br><div align="right">(2)</div> | F<br>L1 |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| 2.2.2 | Selling price / *verkoopprys*<br><br>$= \dfrac{65}{100} \times$ R145 900 ✓MA<br><br>= R94 835 ✓A<br><br><br>= R94 835 – R76 132,50 ✓MCA<br>= R18 702,50 ✓CA<br><br>Not VALID / *Nie GELDIG nie* ✓O | **CA from Question 2.2.1**<br><br>1MA percentage calculation<br><br><br>1A correct answer<br><br><br>1MCA subtracting values<br>1CA simplification<br><br>1O conclusion<br>(5) | F<br>L4 |
| 2.2.3 | Interest / *rente*<br>= R15 000 × 6,25%<br>= R937,50 ✓A<br><br>Amount after one year / *bedrag na een jaar*<br>= R15 000 + R937,50 ✓MA<br>= R15 937,50 ✓CA<br><br>Interest for second year/ *rente vir tweede jaar*<br>= R15 937,50 × 6,95%<br>= R1 107,66 ✓CA<br><br>Amount after two years /*bedrag na twee jaar*<br>= R15 937,50 + R1 107,66<br>= R17 045,16<br><br>Interest after two years /*rente na twee jaar*<br>= R17 045,16 – R15 000 ✓MCA<br>= R2 045,16 ✓CA<br><div align="center">**OR / *OF***</div>Interest / *rente*<br>= R15 000 × 6,25% = R937,50 ✓A<br><br>Amount after one year / *bedrag na een jaar*<br>= R15 000 + R937,50 ✓MA<br>= R15 937,50 ✓CA<br><br>Interest for second year / r*ente vir tweede jaar*<br>= R15 937,50 × 6,95%<br>= R1 107,66 ✓CA<br><br>Interest after two years / r*ente na twee jaar*<br>= R937,50 + R1 107,66 ✓MCA<br>= R2 045,16 ✓CA<br><div align="center">**OR / *OF***</div> | <br><br><br>1A interest<br><br><br><br>1MA adding interest<br>1CA Simplification<br><br><br><br>1CA simplification<br><br><br><br><br><br>1MCA subtracting values<br>1CA simplification<br><div align="center">**OR / *OF***</div><br>1A interest<br><br><br><br>1MA adding interest<br>1CA Simplification<br><br><br><br>1CA simplification<br><br><br><br>1MCA adding values<br>1CA simplification<br><div align="center">**OR / *OF***</div> | F<br>L3 |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| 2.2.3 | Amount after two years / b*edrag na twee jaar*<br><br>       ✓MA     ✓MA<br>= R15 000 × 1,0625 × 1,0695     ✓MA<br>= R17 045,16 ✓CA<br><br>Interest after two years / r*ente na twee jaar*<br>= R17 045,16 – R15 000 ✓MCA<br>= R2 045,16 ✓CA | 1MA adding percentage year 1<br>1MA adding percentage year 2<br>1MA multiplying year 1 & 2<br>1CA simplification<br><br><br>1MCA subtracting values<br>1CA simplification<br><br>                     (6) | |
| | | **[33]** | |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| **QUESTION/*VRAAG* 3 [25 MARKS/*PUNTE*]** | | | |
| 3.1.1 | 537 ✓✓RT | 2RT correct value (2) | D L1 |
| * 3.1.2 | ✓RT Difference/*Verskil* = 2 163 – 2 828 = – 665 ✓CA | 1RT correct values chosen 1CA simplification (2) | D L1 |
| 3.1.3 | % employees with disabilities / *werkers met gestremdhede* ✓RT $= \dfrac{34}{2\,163} \times 100\%$  ✓MCA $= 1{,}572\%$  ✓CA | **CA from Question 3.1.2** 1RT correct values chosen 1MCA calculate % 1CA simplification Accept: 1,6% and 1,57% (3) | D L2 |
| 3.1.4 | % employees at head-office/ *% werkers by hoofkantoor* $= 1{,}5\% \times 2\,163$ $= 32{,}445$ ✓A Number of employees in motor dealerships *Aantal werkers in motorhandelaar* $= 2\,163 – 32{,}445$ ✓MCA $= 2\,130{,}555$ ✓CA Average per dealership/*gemiddelde per motorhandelaar* $= 2\,130{,}555 \div 41$ ✓MCA $= 51{,}9647\ldots$ ✓CA **OR / *OF*** % employees at head-office/ *% werkers by hoofkantoor* $= 100\% - 1{,}5\%$ $= 98{,}5\%$ ✓A | **CA from Question 3.1.2** 1A employees at head office 1MCA subtracting 1CA employees at branches 1MCA average concept 1CA simplification **OR / *OF*** 1A employees at head office | D L3 |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| 3.1.4 | Number of employees in motor dealerships <br> *Aantal werkers in motorhanelaar* <br><br> $= 98,5\% \times 2\,163$ ✓MCA <br> $= 2\,130,555$ ✓CA <br><br> Average per dealership/*gemiddelde per motorhandelaar* <br> $= 2\,130,555 \div 41$ ✓MCA <br> $= 51,9647$ ✓CA | 1MCA multiplying <br> 1CA employees at branches <br><br><br><br> 1MCA average concept <br> 1CA simplification <br> **NPR** <br><br> Accept: <br> 51,96 / 51,97 / 52 / 51 <br><br> (5) | |
| 3.1.5 | % coloured females / *% bruin vroue* <br>   ✓RT <br> $= \dfrac{54}{2\,163} \times 100\%$ ✓MA <br><br> $= 2,497\%$ ✓R | **CA from Question 3.1.2** <br><br> 1RT correct values <br><br> 1MA probability concept <br><br> 1R rounded answer <br> (3) | P <br> L2 |
| 3.2.1 (a) | Lower Quartile / *Onderste kwartiel* $= 21$ ✓✓RT | 2RT finding correct value <br><br> Accept: <br> above 20 − less than 22 <br> (2) | D <br> L2 |
| 3.2.1 (b) | 75$^{th}$ percentile / *75ste persentiel* $= 28,2$ ✓✓RT | 2RT finding correct value <br><br> Accept: above 28 − 29 <br> (2) | D <br> L2 |
| 3.2.1 (c) | Median / *Mediaan* $= 31,5$ ✓✓RT | 2RT finding correct value <br><br> Accept: 30,5 − 32,5 <br> (2) | D <br> L2 |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
|  |  |  | D |
| 3.2.2 | 50% of all the provinces had an unemployment rate of higher than 31,75% / ✓✓O <br> *50% van al die provinsies het 'n werkloosheidkoers van hoër as 31,75%* |  | L4 |
|  | **OR / *OF*** |  |  |
|  | The median of the data is the highest in 2021.   ✓✓O <br> *Die mediaan van die data is die hoogste in 2021.* | 2O first explanation <br><br> 2O second explanation |  |
|  | **OR / *OF*** |  |  |
|  | The maximum value is the highest in 2021. <br> *Die maksimum waarde is die hoogste in 2021.*  ✓✓O |  |  |
|  | **OR / *OF*** |  |  |
|  | The box and whisker indicates a higher unemployment rate / *Die mond-en-snordiagram dui 'n hoër werkloosheidskoers aan.*  ✓✓O |  |  |
|  | **OR / *OF*** |  |  |
|  | Q3 is higher in 2021 than in 2020 and 2019. <br> *K3 is hoër in 2021 as in 2020 en 2019.*  ✓✓O |  |  |
|  | (Any two reasons / *Enige 2 redes*)                                    (4) |  |  |
|  |  | **[25]** |  |

**QUESTION/*VRAAG* 4 [29 MARKS/*PUNTE*]**

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| 4.1.1 | Banks are discouraging clients to go to the branch to reduce the number of people visiting the bank / *Banke ontmoeding kliente om binne die bank transakies te doen om die aantal mense binne die bank te verminder.* ✓✓A <br><br> **OR / *OF*** <br><br> Banks have to pay employees working in the bank / *Banke moet werkers betaal om in die bank te werk.* ✓✓A <br> **OR / *OF*** <br><br> To reduce the wage bill / *Om die loonrekening te verminder.* ✓✓A | 2A explanation <br><br> (2) | F <br> L4 |
| 4.1.2 | Difference in cost / *Verskil in koste* <br><br> = R5,00 – R1,50  ✓RT <br> = R3,50  ✓A | 1RT correct values <br> 1A simplification <br><br> (2) | F <br> L2 |
| 4.1.3 | Nedbank: Pay-as-you-use / *Betaal-soos-jy-gebruik* <br><br> Transaction cost / *Transaksiekoste* <br>   ✓A     ✓A     ✓SF     ✓A <br> = 2 × R5,00 + 2 × R9,00 + R11 + 5 × R2,30 + R15 <br><br> = R65,50 ✓CA <br><br> Difference / *Verskil* <br> = R65,50 – R45,00 <br> = R20,50 ✓CA <br><br> His statement is VALID / *Sy bewering is GELDIG.* ✓O | 1A debit order fees <br> 1A cash withdrawal own ATM <br> 1SF correct formula <br> 1A cash send cost <br><br> 1CA simplification <br><br><br><br> 1CA subtracting <br><br> 1O valid <br><br> (7) | F <br> L4 |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| *<br>4.2.1 | Annual tax payable before primary rebate/<br>*Jaarlikse belasting betaalbaar voor primêre korting*<br>= R87 329 × 18% ✓MA<br>= R15 719,22 ✓CA<br><br>Annual tax payable after primary rebate/<br>*Jaarlikse belasting betaalbaar na primêre korting*<br>= R15 719,22 − R15 714 ✓MCA<br>= R5,22 ✓CA | <br><br>1MA correct tax bracket<br>1CA simplification<br><br><br><br>1MCA subtracting primary<br>    rebate<br>1CA simplification<br>(4) | F<br>L3 |
| 4.2.2 | The discount SARS gives to tax payers /<br>*Die korting wat SARS vir belasting betalers gee.*<br><br>**OR / *OF***<br>                           ✓✓O<br>Rebate is a tax relief given to tax payers /<br>*Korting is* die belasting verligting wat aan belasting betalers geg*ee word.* | <br><br><br><br><br>2O tax discount<br><br><br><br>(2) | F<br>L1 |
| 4.2.3 |  ✓RT      ✓RT<br>R15 714 + R8 613 ✓MA<br><br>= R24 327 ✓MCA<br><br>R24 327 ÷ 18%  ✓MCA<br><br>= R135 150<br><br>**OR / *OF***<br><br>= R135 150 × 18% ✓MA<br>= R24 327 ✓MCA<br>         ✓RT     ✓RT<br>= R24 327 − (R15 714 + R8 613) ✓MA<br>= R0 | 1RT correct value<br>1RT correct value<br>1MA adding correct values<br>1MCA simplification<br><br>1MCA dividing by 18%<br><br><br><br>**OR / *OF***<br><br>1MA calculating 18%<br>1MCA simplification<br>1RT correct value<br>1RT correct value<br>1MA subtracting correct values<br>(5) | F<br>L3 |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| * 4.3.1 | Compound / dual / multiple / stacked bar graph ✓✓A *Saamgestelde/dubbel / veelvoudige /gestapelde staafgrafiek* <br><br> **OR / *OF*** <br><br> Line Graph / *Lyngrafiek* ✓✓A | <br><br><br><br> 2A graph <br><br><br> (2) | D L1 |
| 4.3.2 | **D** = 100% − (40% + 5% + 30% + 5% + 5%) ✓MA <br> = 15% ✓CA | 1MA subtracting from 100% <br> 1CA simplification <br> (2) | D L1 |
| 4.3.3 | $P_{(not\ savings)}$ = 100% − 15% ✓RT <br> = 85% ✓CA <br> = 0,85 ✓C <br><br> **OR / *OF*** <br><br> $P_{(not\ savings)}$ = 30% + 15% + 10% + 10% + 20% ✓RT <br> = 85% ✓CA <br> = 0,85 ✓C | 1RT correct percentages <br> 1CA simplification <br> 1C converting to decimal <br><br> **OR / *OF*** <br><br> 1RT correct percentages <br> 1CA simplification <br> 1C converting to decimal <br> (3) | P L2 |
|  |  | **[29]** |  |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| | **QUESTION/*VRAAG* 5 [32 MARKS/*PUNTE*]** | | |
| 5.1.1 | Cottonseed / *Katoensaad* ✓✓RT | 2RT reading from graph (2) | D L2 |
| 5.1.2 | Coffee contribution / *koffie bydrae*<br><br>✓RT<br>$= \dfrac{8{,}92}{100} \times \$110\,322$ million / *miljoen* ✓MA<br><br>$= \$9\,840{,}7224$ million / *miljoen* / $\$9\,840\,722\,400$ ✓CA | 1RT reading from graph<br><br>1MA multiplying with total amount<br>1CA simplification (3) | F L2 |
| 5.1.3 | 0   **OR**  0%  **OR**  Impossible / *Onmoontlik*   ✓✓A | 2A correct probability (2) | P L2 |
| * 5.1.4 | ✓RT<br>$25{,}98\% = 32\,201$ billion / *miljard*<br><br>Total amount / *totale bedrag*<br>$= \dfrac{100}{25{,}98} \times \$32\,201$ billion / *miljard* ✓MA<br>$= \$123\,945$ billion / *miljard* ✓CA<br><br>Amount for corn<br>✓RT<br>$= \dfrac{11{,}91}{100} \times \$123\,945$ billion / *miljard*<br>$= \$14\,761{,}890300$ billion / *miljard* ✓CA<br><br>**OR / *OF***<br><br>✓RT<br>$25{,}98\% = \$32\,201$ billion / *miljard* ✓MA<br>✓RT<br>$11{,}91\% = ?$<br><br>$25{,}98\% \times ? = \$383\,513{,}91$ billion / *miljard* ✓MA<br><br>$? = \$14\,761{,}89$ billion / *miljard*<br><br>Amount for corn<br>$= \$14\,761{,}89$ billion / *miljard* ✓CA<br><br>**OR / *OF*** | 1RT correct percentage<br><br><br><br>1MA working with correct %<br><br>1CA simplification<br><br><br>1RT correct %<br><br><br>1CA simplification<br><br>**OR / *OF***<br><br>1RT correct percentage<br>1MA concept of ratio<br>1RT correct percentage<br><br>1MA calculating total amount<br><br><br><br>1CA simplification<br><br>**OR / *OF*** | F L2 |

| Q/*V* | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| 5.1.4 | ✓RT<br>25,98% = 32 201 billion / *miljard*<br><br>Total amount / *totale bedrag*<br><br>✓RT    ✓MCA<br>$11,91\% = \dfrac{11,91}{25,98} \times \$32\ 201\text{billion} / \textit{miljard}$ ✓MA<br><br>$= \$14\ 761,890300\ \text{billion} / \textit{miljard}$ ✓CA | 1RT correct percentage<br><br><br>1RT correct percentage<br>1MCA correct ratio<br>1MA calculating total amount<br><br>1CA simplification<br>(5) | |
| 5.1.5 | % contribution of bananas / *% bydrae van piesangs*<br><br>$11,15 = \dfrac{25,98+16,60+11,91+9,33+6,22+B+3,95}{7}$ ✓MA<br>✓MA<br>$11,15 = \dfrac{73,99+B}{7}$<br><br>$78,05 = 73,99 + \mathbf{B}$ ✓S<br>$\mathbf{B} = 78,05 - 73,99$ ✓MCA<br><br>$\mathbf{B} = 4,06$ ✓CA<br><br>**OR / *OF***<br>   ✓MA<br>$25,98 +16,60 +11,91 +9,33 +6,22 +\mathbf{B} +3,95 =11,15 \times 7$<br>✓MA<br>$73,99 + \mathbf{B} \ = \ 78,05$ ✓S<br><br>$\mathbf{B} = 78,05 - 73,99$ ✓MCA<br><br>$\mathbf{B} = 4,06$ ✓CA | 1MA concept of mean<br><br>1MA adding values – *73,99*<br><br><br>1S simplification<br>1MCA changing the subject<br><br>1CA simplification<br><br>**OR / *OF***<br><br>1MA concept of mean<br>1MA adding values – *73,99*<br>1S simplification<br><br>1MCA changing the subject<br><br>1CA simplification<br>(5) | D<br>L3 |
| 5.1.6 | 118 405 000 000 US$/*VS$.* ✓✓A | 2A correct number<br>(2) | D<br>L1 |
| 5.2.1 | Japan ✓✓RT | 2RT correct country<br>(2) | F<br>L2 |
| *<br>5.2.2 | ZAR **OR/*OF*** South African Rand / *Suid Afrikaanse Rand* **OR/*OF*** Rand ✓✓RT | 2RT correct currency<br>(2) | F<br>L2 |

| Q/V | Solution/*Oplossing* | Explanation/*Verduideliking* | T&L |
|---|---|---|---|
| 5.2.3 | € 1 = BRL 5,2379 ✓RT<br><br>   = 5,2379 × R3,2026 ✓MCA<br><br>= R16,77489 / R16,7749 / R16,77 / R16,775 ✓CA | 1RT correct rate<br><br>1MCA multiplying correct values<br>1CA simplification<br>**NPR** *(min 2 decimal places)*<br>**AO**<br><br>                                         (3) | F<br>L2 |
| 5.2.4 | Difference / *Verskil* (in US$/*VS$*)<br>                                         ✓A<br> = 29,72 billion/*miljard* – 21,62 billion/*miljard*<br>= 8,1 billion / *miljard* ✓CA<br><br>Difference / *Verskil (in BRL)*<br><br>= 8,1 billion/*miljard* × 4,9642    ✓MCA<br>= 40,21002 billion / *miljard*    ✓CA<br><br>Difference / *Verskil* (in €)<br><br>= 40,21002 ÷ 5,2379<br>=  7,676744497 billion / *miljard*<br>= 7 676,744497 million / *miljoen* ✓CA<br><br>His statement is VALID */ Sy bewering is GELDIG.*✓O | 1A difference in US$<br><br>1CA simplification<br><br><br><br>1MCA multiplying by correct exchange rate<br>1CA simplification<br><br><br><br>1CA answer in millions<br><br>1O conclusion<br>**NPR**<br>                                         (6) | F<br>L4 |
|  |  |  | **[32]** |
|  |  | **TOTAL/*TOTAAL*: 150** |  |