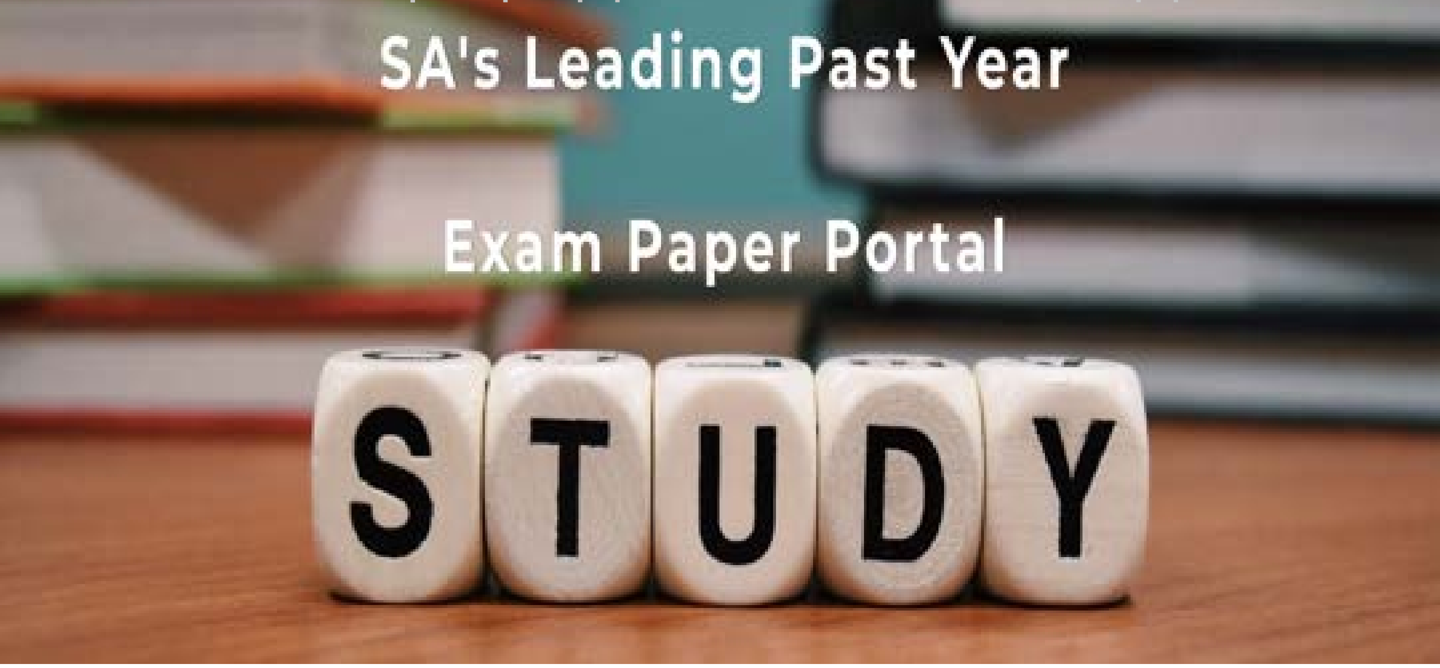

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PREPARATORY EXAMINATION/ *VOORBEREIDENDE EKSAMEN*

GRADE/*GRAAD* 12

MATHEMATICAL LITERACY P1/ *WISKUNDIGE GELETTERDHEID V1*

23 SEPTEMBER 2024

MARKING GUIDELINE/ *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*

This marking guideline consists of 21 pages/
Hierdie nasienriglyne bestaan uit 21 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.
- Note: Consistent accuracy (CA) does NOT apply in cases of a breakdown.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalise for every extra item presented.
- As a general marking principle, if a candidate has incurred one mistake and there is evidence of sound mathematics thereafter, then that candidate should lose ONE mark only.

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.*
- *Let wel: Volgehoue akkuraatheid (CA) geld NIE in die geval van 'n afbreuk NIE.*
- *Wanneer 'n kandidaat aflesings vanaf 'n grafiek, tabel, uitlegplan en kaart geneem het en ekstra antwoorde gee, penaliseer vir elke ekstra item.*
- *'n Algemene nasienbeginsel is dat, indien 'n kandidaat een fout maak en daarna voortgaan met korrekte wiskunde, die kandidaat slegs EEN punt verloor.*

QUESTION PAPER SHOULD BE MARKED OUT OF 142

QUESTION/*VRAAG* 1			**[30 MARKS/*PUNTE*]**
Q/V	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T/L**
1.1.1	F ✓✓ A **Accept:** The process of using a research tool to gather information. ✓✓ A	2A correct answer (2)	D L1 E
1.1.2	H ✓✓ A **Accept:** A tax relief given to a taxpayer. ✓✓ A	2A correct answer (2)	F L1 E
1.1.3	C ✓ ✓ A **Accept:** A numerical description of how likely an event is to occur. ✓✓ A	2A correct answer (2)	P L1 E
1.1.4	E ✓✓ A **Accept:** The financial benefit realised when money generated from a business exceeds the expenses, costs, and taxes involved in keeping the business. ✓✓ A	2A correct answer (2)	F L1 E
1.2.1	✓A Hire-purchase/*Huurkoop* ✓A **AND/*EN*** Online credit/*Aanlyn krediet*.	1A first method / HP 1A second method / on-line (2)	F L1 E
1.2.2	✓✓A You pay for the gas set using a monthly instalment. Only after your final instalment, you own the gas set./*Jy betaal vir die gasstel met 'n maandelikse paaiement.Eers ná jou finale paaiement besit jy die gasstel* **OR/*OF*** ✓✓A A payment option is where the store charges a deposit and then goes into a contract with the buyer to pay monthly instalments while using the product./*'n Betaalopsie is waar die winkel 'n deposito hef en dan 'n kontrak met die koper sluit om maandelikse paaiemente te betaal terwyl die produk gebruik word* **Accept:** ✓✓A • Paying for the gas set while is already in your possession/using it.	2A correct explanation (2)	F L1 E

Q/V	Solution/*Oplossing*	Explanation/*Verduideliking*	T/L
1.2.3	9,5% ✓✓RT	2RT correct percentage **NPU** (2)	F L1 E
1.2.4	Total cost/ *Totale koste* = R942,50 × 12 ✓RT = R11 310,00 ✓A	1RT using R942,50 1A correct answer (2)	F L1 E
1.2.5	Discount/ *Afslag* $= \text{R}10\ 099 \times \frac{10}{100}$ ✓MA = R1 009,90 ✓A	1MA calculating 10% 1A discount amount **[accept R1 009,9/R1 010]** (2)	F L1 E
1.2.6	C ✓✓A **Accept:** ✓✓A Collected by a retail store from the customer who pays the tax included in the price of purchased goods. The store later files a tax return and forwards the tax takings to the government.	2A correct choice (2)	F L1 M
1.3.1	Tree diagram/*Boomdiagram* ✓✓ A	2A correct name (2)	P L1 **E**
1.3.2	H = White Bread Roll /*Witbroodrolletjie* / WBR ✓✓A Q = White Bread Toasted/ *Witbrood Gerooster*/WBT ✓✓A	2A correct label 2A correct label (4)	P L1 E/M
1.3.3	Six/ *Ses*/ 6 ✓✓A **Listing all 6 correct outcomes (½)**	2A total number of outcomes (2)	P L1 E
1.3.4	Four/*vier*/ 4 **Listing all 4 correct outcomes (½)**	2A correct number of outcomes (2)	P L1 M

QUESTION/*VRAAG* 2		[33 MARKS/*PUNTE*]	
Q/V	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T/L**
2.1.1	**Goitsemodimo's budget for September 2024**		F L2 E

INCOME in Rand (R)			**EXPENSES in Rand (R)**		
Basic Salary/ *Basiese Salaris*	12 000	✓A	**Rent/ *Huur***	8 500	
Commission/ *Kommisie*	22 000	✓A	**Fuel/ *Brandstof***	2 500	✓A
Bonus	8 120		**Electricity/ *Elektrisiteit***	800	
			Monthly gym membership/ *Maandelikse gim lidmaatskap*	350	
			Car payment/ *Karpaaiement*	4 600	
			Insurance/ *Versekering*	1 975	
			Cell phone/ *Selfoon*	800	✓A
			Groceries/ *Kruideniers*	3 000	
			Entertainment/ *Vermaak*	1 700	
			Water usage/ *Water gebruik*	400	
Total/*Totaal*	**= 42 120**	✓CA	**Total/*Totaal***	**= 24 625**	✓CA

Income : 1A basic salary and amount
1A commission and bonus
1CA total income
Expenses: 1A first five items
1A last five items
1CA total expense

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T/L
2.1.2 (a)	✓MA ✓A 1 700 : 8 500 1 : 5	1MA correct amounts in the correct order 1CA simplification **AO** (2)	F L2 E
2.1.2 (b)	Variable expenses' sum/ *Veranderlike uitgawes se som* Fuel/ *Brandstof* = R2 500 Electricity/*elektrisiteit* = R800 cellphone /*Selfoon* = R800 Groceries/*kruideniers* = R3 000 Entertainment/*Vermaak* = R1 700 Water usage/*water gebruik* = R400 Total variable expenses = R9 200 $\frac{9\ 200 \checkmark A}{12\ 000 \checkmark A} \times 100$ ✓M = 76,67% ✓CA If Cell phone is regarded as a fixed cost: Accept as below: $\frac{8\ 400 \checkmark A}{12\ 000 \checkmark A} \times 100\%$ ✓M =70% ✓CA	1A numerator 1A denominator 1M percentage 1CA answer **AO NPR** (4)	F L2 M

Q/*V*	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T/L**
2.2.1	✓✓A A price quotation is a document stating ALL **expected** financial costs of the Ford bakkie./*'n Pryskwotasie is 'n gedrukte dokument wat ALLE verwagte finansiële koste van die Ford-bakkie aandui* **OR/*OF*** ✓✓A Price Quotation is a type of document that provides a **expected** fixed/unchanged price or cost for purchasing a bakkie./*Pryskwotasie is 'n tipe dokument wat 'n verwagte vaste/onveranderde prys of koste verskaf vir die aankoop van 'n bakkie* **OR/*OF*** ✓✓A Price quotation is a detailed statement showing various items and their expected costs amounting to a particular amount for buying a bakkie./*Dit is 'n gedetailleerde staat wat verskeie items en hul verwagte koste toon wat 'n bepaalde bedrag vir die aankoop van 'n bakkie beloop* **OR/*OF*** ✓✓A Price quotation is a type of document that provides an **expected** fixed price or cost for buying the bakkie./*Pryskwotasie: 'n tipe dokument wat 'n verwagte vaste prys of koste verskaf vir die aankoop van die bakkie.* **OR/*OF*** ✓✓A Price quotation is a document enlisting available Ford bakkie items and their **expected** costs. **OR/*OF*** A documented commitment from the seller to the buyer offering the bakkie and accessories at a fixed price.	2A correct wording. (2)	F L1 E

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T/L
2.2.2	✓✓A R1 250 000 **OR/*OF*** 1 250 000	2A correct number (2)	F L1 E
2.2.3	Discount percentage/ *Afslag persentasie* $= \frac{\text{R18 420,00} \checkmark \text{RT}}{\text{R480 263,16} \checkmark \text{RT}} \times 100\%$ = 3,835397243 = 3,84% ✓ R	1RT numerator 1RT denominator 1R rounding % to two decimal places. **AO** (3)	F L2 M
2.2.4	VAT/ *BTW* $= \frac{15}{100} \times \text{R477 107,47}$ ✓ RT = R71 566,1205 ✓ A Total due/ *Bedrag verskuldig* = R477 107,47 + R71 566,12 ✓ MA = R548 673,59 **OR/OF** Total due = $\frac{115}{100} \times \text{R477 107,47}$ ✓ MA ✓ MA ✓RT = R548 673,59	1RT reading R477 107,47 1A VAT amount 1MA adding correct values 1RT reading R477 107,47 1MA increased % (115) 1MA using 115% (3)	F L2 E

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	TL
2.2.5	✓✓ O To protect the front of the bakkie/*om die voorkant van die bakkie te beskerm* **OR/*OF*** ✓✓ O Protects the vehicle's radiator/grille/surrounding area./*Beskerm die voertuig se verkoeler/rooster/omringende area* **OR/*OF*** ✓✓ O Protection of body – avoiding any nasty scratches or dents to the body front/ *Beskerming van raamwerk - vermy enige nare skrape of duike aan die voorkant van die raamwerk* **OR/*OF*** ✓✓ O Keep the engine bay safe./*Beskerm die enjinkompartement* **OR/*OF*** ✓✓ O Enhance the vehicle's look/*Bevorder die voertuig se aansig* **OR/*OF*** ✓✓ O Provide a bakkie with a sleeker/richer finish or look./*Voorsien 'n bakkie van 'n belynde/beter afwerking of voorkoms* **OR/*OF*** ✓✓ O For safety reasons/as a safety feature/*Vir veiligheidsredes/as 'n veiligheidskenmerk* **OR/*OF*** ✓✓ O Beautification of the bakkie./*Verfraaiing van die bakkie* **OR/*OF*** ✓✓ O Durability/longer lasting/general protection./ *Duursaamheid/langduriger/algemene beskerming*	2O protection of front parts 2O protection 2O security reason 2O security reason 2O beauty 2O beauty reason 2O safety reason 2O beauty looking reason. 2O durability reason (2)	F L4 E

Q/V	Solution/*Oplossing*	Explanation/*Verduideliking*	TL
2.2.6	33 months/*maande* = 2 yrs 9 mnths ✓ C **Interest 1st year**/*Rente 1ste jaar*: $= \frac{6,7}{100} \times R\ 1\ 250\ 000$ ✓ MA = R 83 750 ✓ CA **Year 1 total** = R1 250 000 + 83 750 = R1 333 750 ✓ CA **Interest 2nd year/** *Rente 2de jaar*: $= \frac{6,7}{100} \times R1\ 333\ 750$ = R 89 361,25 **Year 2 total/***Jaar 2 totaal* = R1 333 750 + R 89 361,25 = R1 423 111,25 ✓ CA **Interest for 9 months/ *rente vir 9 maande*** $\frac{6,7}{100} \times \frac{9}{12} \times R1\ 423\ 111,25$ ✓ M = R71 511,34 ✓ CA Total interest earned/*Totale rente verdien* = R 83 750 + R 89 361,25 + R71 511,34 = R244 622,59 ✓ CA **OR/OF**	**CA 1,25 million from 2.2.2** 1C conversion to years and months 1MA calc. interest for year 1 1CA 1st year interest 1CA total for year 1 1CA total year 2 1M calc. % for 9 months 1CA interest for 9 months 1CA total interest	F L4 D

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T/L
	Interest for 9 months/ *rente vir 9 maande* $\frac{6,7}{100} \times \frac{9}{12} \times$ R1 423 111,25 ✓M = R71 511,34 ✓CA **9 months total/***9 maande totaal* = R1 423 111,25 + R71 511,34 = R1 494 622,59 Total interest earned/*Totale rente verdien* = R1 494 622,59 – R1 250 000 = R244 622,59 ✓CA ✓O ∴ Interest is not enough/sufficient./is less than R480 263,16/less than the selling price of a bakkie./*Rente is nie genoeg/voldoende nie./is minder as R480 263,16/minder as die verkoopprys van 'n bakkie.* **OR/OF**	1M calc. % for 9 months 1CA interest for 9 months 1CA total interest 1O conclusion (9)	

	33 months/*maande* = 2 yrs 9 mnths ✓C **Interest 1st year**/*Rente 1ste jaar*: $= \frac{6,7}{100} \times$ R1,25 million ✓MA = R0, 08375 million ✓CA **Year 1 total** **=** R1,25 + R0,08375 = R1,33375 million ✓CA **Interest 2nd year/** *Rente 2de jaar*: $= \frac{6,7}{100} \times$ R1 333 75 = R0, 089 36125 million **Year 2 total/***Jaar 2 totaal* = R1,33375 + R0,089 36125 = R1,42311125 ✓CA **Interest for 9 months/ *rente vir 9 maande*** $\frac{6,7}{100} \times \frac{9}{12} \times$ R1,42311125 ✓M = R0,07151134031 million ✓CA Total interest earned/*Totale rente verdien* = R0,08375 + R0,08936125 + R0,07151134031 = R0,2446225903 ≈ R0,244 million ✓CA **OR/OF**	1C conversion to years and months 1MA calc. interest for year 1 1CA 1st year interest 1CA total for year 1 1CA total year 2 1M calc. % for 9 months 1CA interest for 9 months 1CA total interest	

	Interest for 9 months/ *rente vir 9 maande* $\frac{6,7}{100}\times\frac{9}{12}\times$ R1,42311125 ✓M = R0,071 51134031million ✓CA **9 months total/***9 maande totaal* = R1,42311125 + R0,07151134031 = R1,49462259 million Total interest earned/*Totale rente verdien* = R1,49462259 – R1,25 = R0,02446225903 ≈ R0,0244 million ✓CA ∴ Interest is not enough/sufficient./is less than R480 263,16/less than the selling price of a bakkie./*Rente is nie genoeg/voldoende nie./is minder as R480 263,16/minder as die verkoopprys van 'n bakkie.* ✓O **OR/*OF*** Value of the interest after 2 years and 9 months/*Waarde van die rente na 2 jaar en 9 maande*: = R1 250 000 × 1,067 × 1,067 × 1,05025 – R1 250 000 ✓✓MA ✓MA ✓✓MA ✓CA = R1 494 622,59 – R 1 250 000 ✓MCA = R244 622,59 ✓CA It is not enough/It is insufficient/It is less the selling price/*Dit is nie genoeg nie/Dit is onvoldoende/Dit is minder die verkoopprys*. ✓O	1M calc. % for 9 months 1CA interest for 9 months 1CA total interest 1O conclusion **1 mark penalty for omitting millions** (9) **Note:** $\frac{6,7}{100}\times\frac{9}{12}=0,05025$ (9)	
		[33]	

QUESTION/*VRAAG 3*		[30 MARKS/*PUNTE*]	
Q/*V*	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T/L**
3.1.1	✓✓A Observation/*Waarneming*	2A correct tool (2)	D L1 E
3.1.2	Value of R/ *Waarde van R* = $16 = \dfrac{216 + 3\mathbf{R}}{18}$ ✓MA ✓M $16 \times 18 = 216 + 3\mathbf{R}$ $288 - 216 = 3\mathbf{R}$ ✓M $72 = 3\mathbf{R}$ $\mathbf{R} = 24$ ✓CA	1MA adding value 1M concept of mean 1M changing subject 1CA value of R **AO** (4)	D L2 M
3.1.3 (a)	11 12 12 14 15 15 16 18 18 19 19 19 20 20 20 20 20 20 ✓M Median/*mediaan* = $\dfrac{18+19}{2}$ ✓M = 18,5 ✓CA	1MA arranging values 1M adding middle values and dividing by 2 1CA simplification Unarranged data $\dfrac{18+20}{2}$ ✓M = 19✓ CA (3)	D L2 M
3.1.3 (b)	$Q_1 = 15$ ✓A IQR = $\mathbf{Q_3 - Q_1}$ ✓A = 20 – 15 = 5 ✓CA	**CA from 3.1.3 (a)** 1A value of Q1 1A IQR concept (Formula) 1CA IQR value (3) **Unarranged data** Q1 = 16✓ IQR = $\mathbf{Q_3 - Q_1}$ ✓ = 20 – 16 = 4✓ **(3/3)** **If** IQR = 11 – 16 = -5 (0 marks, break down => stop marking)	D L3 M

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T/L
3.1.4	✓ ✓O Small groups of participants ensure a feeling of togetherness/*Klein groepe deelnemers verseker 'n gevoel van samehorigheid.* **OR/*OF*** ✓ ✓O Participants are able do morning classes before they go to work/*Deelnemers is afgetrede senior burgers of doen nie dagwerk nie en het geen oggendtakies of verpligtinge nie* **OR/*OF*** ✓ ✓O It's part of starting the day./*Dit is deel van die begin van die dag.* **OR/*OF*** ✓ ✓O During the day people may be committed due to planned or unplanned reasons/ *Gedurende die dag kan mense toegewyd wees weens beplande of onbeplande redes* **OR/*OF*** ✓✓O Some people may only come when they have a day off./*Sommige mense sal dalk net kom wanneer hulle 'n dag af het.* **OR/*OF*** Any reason making sense./*Enige sinvolle argument.*	2O reason (2)	D L4 E
3.1.5	✓ ✓O The maximum value is the same as quartile 3./*Die maksimum waarde is dieselfde as kwartiel 3.* **OR/*OF*** ✓✓O Attendance remained the same from the 75th percentile./*Bywoning het dieselfde gebly vanaf die 75ste persentiel*	2O reason (2)	D L4 M

Q/V	Solution/*Oplossing*	Explanation/*Verduideliking*	T/L
3.2.1	EC/Eastern Cape/*Oos-Kaap* ✓✓ A	2A correct province (2)	D L1 M
3.2.2	Ascending/*Stygend*. ✓✓ A	2A ascending. (2)	D L1 M
3.2.3	Percentage Change/*Persentasie verandering* $= \frac{440-437}{437} \times 100\%$ ✓A ✓ MA $= 0,69\%$	1A numerator and denominator 1MA percentage calculation (2)	D L2 E
3.2.4	$100\% - 4,08\% = 95,92\%$ ✓MA $\mathbf{A} = \frac{100\%}{95,92\%} \times 4\ 417$ ✓A ✓RT $= 4\ 604,879066$ $= 4\ 604$ or $4\ 605$ ✓CA	1MA calculating 95,92% 1A numerator and denominator 1RT correct value (4 417) 1CA simplification (4)	D L3 M
3.2.5	Estimated/*geskatte* $= \frac{34}{100} \times 60,14$ million ✓ MA $= 20,4476$ million/*miljoen* ✓ A Number in table/ *Aantal in tabel* $= \frac{20\ 495}{1\ 000}$ $= 20,495$ million/*miljoen* ✓ C Difference/*verskil* $= 20,495$ million/*mil* – $20,4476$ million/*mil* $= 0,0474$ million/*miljoen* ✓ CA	1MA calculating 34% 1A simplification 1C converting table value 1CA difference (4)	D L3 M
		[30]	

QUESTION/*VRAAG* 4		**[25 MARKS/*PUNTE*]**	
Q/V	**Solution/*Oplossing***	**Explanation/*Verd***	**T/L**
4.1.1	To put aside or accumulate money that one will receive at his retirement age. ✓✓A	2A correct answer (2)	F L1 E
4.1.2	**Pensionable service period/*Pensioendraende dienstydperk:*** 2024 – 1992 = 33 yrs ✓A Gratuity/*Gratifikasie* = 6,72% × final salary per year × years of pensionable service/*finale salaris per jaar × jaar pensioendraende diens* $= \frac{6,72}{100} \times$ R540 333 × 33 ✓SF = R1 198 242,08 ✓CA 4 years later/*4 jaar later* = 37 yrs Gratuity/*Gratifikasie* = 6,72% × R613 650 × 37 ✓ MCA = R1 525 779,36 Difference/*verskil* = R1 525 779,36 – R1 198 242,08 = R327 537,28 ✓ CA ≈ R327 537 ✓R	1A number of years 1SF correct values in correct formula 1CA simplification 1MCA new gratuity 1CA difference 1R correct rounding (6)	F L3 M

	If learners work with 32 and 36 (allocate 5/6) **Pensionable service period/*Pensioendraende dienstydperk:*** 2024 – 1992 = 32 yrs. Gratuity/*Gratifikasie* = 6,72% × final salary per year × years of pensionable service/*finale salaris per jaar × jaar pensioendraende diens* = 6,72% × R540 333 × 32✓SF = R1 161 932,0832✓S 4 years later/*4 jaar later* = 36 yrs Gratuity/*Gratifikasie* ✓ MCA = 6,72% × R613 650 × 36 = R1 484 542,08 Difference/*verskil* = R1 161 932,10 – R1 484 542,08 = R322 609,98✓ CA ≈ R322 610✓R		

Q/*V*	Solution/*Oplossing*	Explanation/*Verdui*	T/L
4.1.3	**Annuity (p.a.)/*Annuïteit (p.j.)*** $= (\frac{1}{55} \times \text{final salary} \times \text{years of pensionable service}) + 360$ $= (\frac{1}{55} \times R540\ 333 \times 33) + 360$ ✓SF = R324 559,80 ✓CA **Tax payable per annum/*Belasting betaalbaar p.j.*** = R42 678 + 26% ✓MA × (R324 559,80 – R237 100) ✓SF = R42 678 + R22 739,55 = R65 417,55 ✓CA = R65 417,55 – R17 235 = R48 182,55 ✓CA Annuity after tax/ *Annuïteit na belasting* = R324 559,80 – R48 182,55 = R276 377,25 ✓CA Monthly annuity *Maandelikse annuïteit* = R276 377,25 ÷ 12 ✓MA = R23 031,44 ✓CA	**CA from 4.1.2** 1SF substituting correct values 1CA simplification 1MA correct tax bracket 1SF correct substitution 1CA tax before rebate 1CA tax after rebate 1CA simplification 1MA divided by 12 1CA monthly income after tax (9)	F L3 D

	If learners work with 32 years (9/9) **Annuity (p.a.)/*Annuïteit (p.j.)*** = $(\frac{1}{55} \times \text{final salary} \times \text{years of pensionable service}) + 360$ $= (\frac{1}{55} \times \overset{\checkmark SF}{R540\ 333 \times 32}) + 360$ $= R314\ 735{,}5636 \approx R314\ 735{,}56$ ✓CA **Tax payable per annum/*Belasting betaalbaar p.j.*** $= R42\ 678 + \overset{\checkmark MA}{26\%} \times (\overset{\checkmark SF}{R314\ 755{,}56} - R237\ 100)$ $= R42\ 678 + R20\ 190{,}45$ $= \overset{\checkmark CA}{R62\ 868{,}45}$ $= R62\ 868{,}45 - R17\ 235$ $= R45\ 633{,}45$ ✓CA Annuity after tax/ *Annuïteit na belasting* $= R314\ 735{,}56 - R45\ 633{,}45$ $= R269\ 102{,}11$ ✓CA Monthly annuity/*Maandelikse annuïteit* $= R269\ 102{,}11 \div 12$ ✓MA $= R22\ 425{,}18$ ✓CA	1SF substituting correct values 1CA simplification 1MA correct tax bracket 1SF correct substitution 1CA tax before rebate 1CA tax after rebate 1CA simplification 1MA divided by 12 1CA monthly income after tax	

Q/*V*	Solution/*Oplossing*	Explanation/*Verdui*	T/L
4.2.1	✓✓A Compound/ Multiple bar/*saamgestelde/ Meervoudige*	2A compound/multiple (2)	D L1 E
4.2.2	✓✓A (a) No Data for Tuesday and Wednesday/ *Geen data vir Dinsdag en Woensdag nie* ✓✓A (b) no stats reflected the number of visitors in a park from/*geen statistieke weerspieël die aantal besoekers in 'n park vanaf nie* 17:00–19:00 • No numbers on the vertical axis/*Geen getalle op die vertikale as nie* **OR/*OF*** • No bars from 17:00–19:00/*Geen stawe vir 17:00–19:00*	2A two days left out. 2A hours not having visitors' stats. (4)	D L4 M
4.2.3	The number of visitors increases to about 12:00. ✓O on weekdays and then decrease again till 16:00. ✓O *Die aantal besoekers neem toe tot ongeveer 12:00. op weeksdae en verminder dan weer tot 16:00.* **OR/*OF*** The number of visitors increases to about 13:00 ✓O on weekends and then decreases again till 16:00. ✓O *Die aantal besoekers neem toe tot ongeveer 13:00 oor naweke en neem dan weer af tot 16:00.*	1O increase and time period 1O decrease and time period (2)	D L4 D
		[25]	

QUESTION/*VRAAG* 5		**[32 MARKS/*PUNTE*]**	
Q/V	**Solution/*Oplossing***	**Explanation/*Verduidelik***	**T/L**
5.1.1	FCA share of USA production/*FCA-aandeel van VSA-produksie*: $= 100\% - (11 + 11 + 8 + 3 + 4 + 2 + 1 + 7 + 20 + 18)\ \%$ $= 100\% - 85\%$ ✓ MA $= 15\%$ ✓ A	1MA subtracting correct values from 100% 1A percentage **AO NPU** (2)	D L2 E
5.1.2	$\text{SUV} = \frac{3}{100} \times 11\ 800\ 000$ ✓ MA $= 354\ 000$ ✓ CA **OR/OF** $\text{SUV} = \frac{3}{100} \times 11,8 \text{ million}$ ✓ MA $= 0{,}354 \text{ million}$ ✓ CA	1MA calculating 3% 1CA total vehicles **AO NPU** (2)	D L2 E
5.1.3	Contribution/B*ydrae* $= 20\% + 18\% + 15\%$ ✓ MA $= 53\%$ ✓ A ✓ O The statement is VALID/*Vervolgens is die stelling WAAR.*	**MCA from 5.1.1** 1MA adding correct percent 1A simplification 1O conclusion (3)	D L4 M
5.1.4	7% ✓✓A	2A correct value **NPU** (2)	D L2 E

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T/L
5.1.5	Number of toyota vehicles $= \frac{10}{100} \times 90{,}2$ million/*milj* $= 9{,}02$ million/*milj* ✓ A Amount in Japanese Yen (¥) $= 9{,}02 \times$ ¥1 870 500 = ¥16 871 910 million/*milj* ✓ CA Amount in dollars ($) ¥1 = $0,0069 = 16 871 910 × 0,0069 ✓ C = $116 416,179 million/*milj* ✓ CA Amount in rands (R) R1 = $0,054 $= \frac{\$116\ 416{,}179}{0{,}054}$ ✓ C = R2 155 855 million/*milj* ✓ CA **OR/OF**	1A number of vehicles 1CA amount in Yen 1C converting to $ 1CA amount in $ 1C convert to rand. 1CA amount in rands	F L 3 D

	For 1 vehicle ¥1 = \$0,0069 Amount in dollars (\$) $1\ 870\ 500 \times 0{,}0069$ ✓C = \$12 906,45 ✓CA Amount in rands (R) R1 = \$0,059 $= \dfrac{12\ 906{,}45}{0{,}054}$ ✓C = R239 008,33✓CA Number of toyota vehicles $= \dfrac{10}{100} \times 90{,}2$ million/*milj* = 9,02 million/*milj*✓A Total amount = 9,02 × R239 008,33 = R2 155 855,14 million✓CA	1C convert to \$ 1CA amount in \$ 1C convert to rand 1CA amount in rands 1A number of vehicles 1CA simplification (6)	

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T/L
5.2.1	UL = Base fare + 10,5 × Cost per mile/ *Basistarief + 10,5 × Koste per myl* ✓MA ✓RT = \$22,87 + (10,5 × \$7,85) = \$105,295 ✓CA ≈ \$105,30	1RT using correct values. 1MA multiplying and adding. 1CA value of UL **AO NPU** (3)	F L2 M
5.2.2	UPFRONT fare = base fare (call-out fee) + (number of miles × per mile fare) ✓SF \$14,98 = 00 + (**n** × \$1,90) ***where n = number of miles*** **n** = $\frac{14,98}{1,90}$ ✓MA = 7,88421052631 ✓CA ≈ 8 ✓R	1SF correct substitution 1MA changing subject of the formula 1CA simplification 1R rounding (4)	F L2 M

Q/*V*	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T/L**
5.2.3	✓✓O To cover the cost for wasted time/ idle when a vehicle could have been used to assist someone when you cancel the booking./*Om die koste te dek vir ledige/Vermorste tyd wanneer 'n voertuig gebruik kon word om iemand by te staan wanneer jy die bespreking kanselleer.* **OR/*OF*** ✓✓ O Penalty/Fine for booking made if one does not finally use the vehicle (or time wasting)./*Boete/boete vir bespreking gemaak as mens nie uiteindelik die voertuig gebruik nie (of tyd mors)* **OR/*OF*** ✓✓ O Prevent Prank/HOAX/fraudster calls./ *Voorkom HOAX/bedrieër-oproepe* **OR/*OF*** ✓✓ O Cover petrol and wear and tear of the vehicle/*Vir petrol en slytasie van die voertuig* **OR/*OF*** ✓✓ O Recovering company costs or company make a profit/and loss/*Vir die verhaal van maatskappykoste of maatskappy maak 'n wins/en verlies*	2O reason (2)	F L4 E

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T/L
5.2.4	Time in minutes 1 hr 45 min = 60 min + 45 min = 105 min ✓C Post-trip cost/*Na-reiskoste:* = (105 min × $0,55 per min) ✓SF + (30 miles × $4,05) = $57,75 + $121,5 ✓MA = $179,25✓ CA Upfront cost/*Vooraf koste:* = $18 + (30 miles × $4,05 per mile) ✓SF = $139,50✓ CA Difference/*verskil* = $179,25 – $139,50 = $39,75 ✓ CA The statement is correct/*Die stelling is korrek* ✓O	1C converting to minutes. 1SF correct substitution 1MA adding values 1CA post trip cost 1SF correct substitution 1CA upfront trip cost 1CA difference 1O conclusion (8)	F L4 D
		[32]	
		TOTAL/*TOTAAL*: 150	

Scaling the whole paper

$$\frac{\text{Learner total}}{142} \times 150$$