LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

VHEMBE WEST DISTRICT

NATIONAL SENIOR CERTIFICATE

GRADE 12

MATHEMATICAL LITERACY

INVESTIGATION MEMO

FEBRUARY 2024

This Memorandum consists of 3 pages including the cover page

Symbol	**Explanation**
M	Method
MA	Method with accuracy
CA	Consistent accuracy
MCA	Method with constant accuracy
A	Accuracy
C	Conversion
S	Simplification
RT / RG / RD	Reading from a table / graph / diagram
SF	Correct substitution in a formula
O	Opinion / Example / Definition / Explanation
R	Rounding off
NPR	No penalty rounding or omitting units
AO	Answer only, full marks
J	Justify

Ques	Solution	Explanation	Marks
1.1	Credit – Money deposited into TT Mushasha's account ✓✓ Debit – Money withdrawn or taken out from TT Mushasha's account✓✓	2A Correct definition of Credit 2A Correct definition of Debit	4
1.2	Elite current account ✓✓	2RT Type of account	2
1.3	$-R2\ 895,77$ ✓✓ **$R2\ 895,77$ (1 Mark for positive amount)**	2A Correct negative Balance	2
1.4	$R15\ 761,80 + R3\ 192,05$ ✓ $= R18\ 954,30$ ✓	1M Adding correct values 1A Answer	2
1.5	$R20,18 + R42,37 + R17,47 + R100,88$ ✓ $= R180,82$ ✓	1M Adding correct values 1A Answer	2
1.6	$R20,18 + R296,10 + R187{,}27 + R4\ 069,52 + R42,37 + R729,45 + R1\ 800 + R17,47 + R100,88$ ✓✓ $= R7\ 263,24$	2M Adding correct values 1A Answer	3
2.1	Tax bracket 4✓✓	1A Correct tax bracket	2
2.2	R128 650, 00✓✓	2A Correct Tax threshold	2
2.3.1	R35 455 ×12 ✓ = R 425 460, 00✓	1M Multiplying by 12 1A Annual gross	2
2.3.2	R14 958 + R8 199 ✓ = R23 157, 00 ✓	1M Adding correct rebates 1A Answer	2
2.3.3	$\frac{7{,}5}{100} \times R425\ 460 \quad = \text{R31 909,50}$ ✓ $\textbf{Annual Taxable Income} = (\textbf{Annual gross} - \textbf{Annual Pension})$ $= \text{R 425 460} - \text{R31 909,50}$ ✓ $= \text{R393 550,50}$ ✓	1M Calculating annual pension 1MA Subtracting Correct values 1CA	3
2.3.4	R67 144 + 31% of Taxable income above R321 600 ✓ R67 144 + 0,31 × (R425 460 - R321 600)✓ R67 144 + 0,31 × R71 950 R67 144 + R22 304, 66✓✓ R89 448, 66 – R23 157 (Secondary Rebate)✓ R 66 291, 66✓	1F Correct tax bracket 1SF Substitution 2M Adding correct values 1MA Subtracting correct rebate 1CA Answer	6

Ques	Solution	Explanation	Marks
3.1.1	9 kl ✓✓	2A RT simplification	2
3.1.2	25 kl = 6 kl + 9 kl + 10 kl✓ Block 1 = 6 × R10,34 = R 62,04✓ Block 2 = 9 × R24,54 = R220,54✓ Block 3 = 10 × R27,63 = R275,40✓ Total = R557,98✓	1A Adding values 1M rate x 6 1M rate x 10 1S R275,40 1CA Answer	5
3.2.1	Block 1 (0 ≤ 6 kl) = (4 x 0) = R0,00✓ Block 2 (> 6 ≤ 10,5 kl) = (4,5 × 0) = R0,00 Bock 4 (>10,5 ≤ 35 kl) = 4,5 × R36,19✓ = R868,56 Total Amount Due = R868,56✓	1M rate of R0,00 1M multiply by R36,19 1CA Answer	3
3.2.2	Block 1 = 4,2 × R15,74 = R66,11✓ Block 2 = 3,15 × R22,40 = R70,56 Block 3 = 17,15 × R33,52 = R574,87✓ Block 4 = 0,5 × R60,32 = R30,16 Total Bill = R741,70 ✓	1M rate of 4,2 1M multiply by R33,52 1CA Answer	3
3.2.3	Bill before VAT = R741,70 ÷ 1,15 ✓✓ = R644,96 ✓	2MCA divided by 1,15 1CA Answer	3
3.2.4	580 – 66,11 = R513,89 is 4,2 kl✓ 513,89 – 70,56 = R443,33 is 3,15 kl ✓ 443,33 ÷ 33,52 = 13,23 kl Total kilolitres = 4,2 – 3,15 + 13,23 = 10,5 kl ✓	1M subtraction 1S R443,33 1CA Answer	3
	TOTAL MARKS: 50		