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Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

PROVINCIAL ASSESSMENT

GRADE 12

MATHEMATICAL LITERACY P1

JUNE 2025

MARKING GUIDELINES

MARKS: 100

Symbol	Explanation
M	Method
MA	Method with accuracy
MCA	Method with consistent accuracy
CA	Consistent accuracy
A	Accuracy
C	Conversion
S	Simplification
RT	Reading from a table/a graph/document/diagram
SF	Correct substitution in a formula
O	Opinion/Explanation/Reasoning
P	Penalty, e.g. for no units, incorrect rounding off, etc.
R	Rounding off
NPR	No penalty for correct rounding
AO	Answer only

These marking guidelines consist of 7 pages.



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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.
- 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 penalize for every extra item presented.
- General principle of marking, if a candidate has incurred one mistake and there is evidence of sound mathematics thereafter, then that candidate should lose one mark only.
- Rounding is an independent mark.
- In opinion type questions marks will only be awarded if relevant calculations are shown.

QUESTION 1 [20 MARKS] Answer only AO FULL MARKS			
Q	Solution	Explanation	T/L
1.1.1	Bar graph/horizontal bar graph ✓✓ A	2A correct graph type (2)	D L1 E
1.1.2	Ratlou ✓✓ A	2A correct LEO (2)	D L1 E
1.1.3	= JB Marks + Matlosana + Maquassi ✓MA = 48 329 + 85 016 + 22 653 ✓RT = 155 998 ✓CA	1RT correct values 1MA adding 1CA simplification (3)	D L1 E
1.1.4	Naledi: Rustenburg 51 701: 122 035 ✓A ✓A 1: 2,36 ✓CA	1A correct values 1A correct order 1CA simplification NPR (3)	D L1 M
1.2.1	Total amount ✓RT ✓MA = R250,44 + R99 + R89 + R135,25 + R686,64 + R237,78 = R1 498,11 ✓CA	1RT correct values 1MA addition 1CA simplification (3)	F L1 E
1.2.2	✓RT = $\frac{R51,92}{R1\,287,62} \times 100$ ✓MA = 4,03% ✓A	1RT correct values 1MA dividing 1A simplification NPR (3)	F L1 M



1.2.3	= Front brake pads + Rear brake pads $\checkmark$ RT $= R328,57 + R619,38 \checkmark$ MA $= R947,95 \checkmark$ A	1RT correct values 1MA addition 1A simplification (3)	F L1 M
1.2.4	VW Citi Golf $\checkmark \checkmark$ CA	CA from Question 1.2.1 2CA correct vehicle (2)	F L1 E
[20]			
QUESTION 2 [43 MARKS]			
2.1.1	A charge in rand per measuring unit of electricity. $\checkmark \checkmark$ O	2O explanation (2)	F L1 E
2.1.2 (a)	No. of units purchased $= 142,4 \text{ kWh} - 5,3 \text{ kWh} \checkmark$ MA $= 137,1 \text{ kWh} \checkmark$ A Cost for first 100 units $= 100 \times R2,775755 \checkmark$ MCA $= R277,5755 \checkmark$ CA Next 37,1 units $= 37,1 \times R3,248405 \checkmark$ MCA $= R120,5158255 \checkmark$ CA Total cost $= R277,5755 + R120,5158255 \checkmark$ CA $= R398,09$ $\approx R398$ OR $100 \text{ kWh} \times R2,775755 \checkmark$ MA $= R277,5755 \checkmark$ A $R398 - R277,5755 = R120,5755 \checkmark$ CA Amount of kWh $= \frac{R120,5755}{R3,248405} \checkmark$ MCA $= 37,0707188605 \text{ kWh} \checkmark$ CA Total kWh purchased $= 100 \text{ kWh} + 37,0707188605 \text{ kWh}$ $= 137,0707188605 \text{ kWh} \checkmark$ CA New reading on meter $= 137,0707188605 \text{ kWh} + 5,3 \text{ kWh} \checkmark$ CA $= 142,371886 \text{ kWh}$ $= 142,4 \text{ kWh}$	1MA subtracting 1A difference in units 1MCA multiplying with tariff 1 CA simplifying MCA multiplying with tariff 1 CA simplifying 1CA adding OR 1MA multiplying with tariff 1A simplification 1CA cost of R120,5145 1MCA dividing with tariff 1CA simplification 1CA kWh purchased 1CA adding new (7)	F L3 M
2.1.2 (b)	$= \frac{R398}{1,15} \checkmark$ MA $= R346,0869565... \checkmark$ MA $= R398 - R346,0869565... \checkmark$ MA $= R51,91 \checkmark$ A	1MA dividing by 1,15 1MA simplification 1A VAT	F L2 M



	OR $R398 \times \frac{15}{115} \checkmark \text{MA}$ $= R51,91304348 \checkmark \text{MA}$ $= R51,91 \checkmark \text{A}$	OR 1MA multiply with $\frac{15}{115}$ 1MA simplification 1A VAT (3)	
(c)	$= 142,4 \text{ kWh} - 82 \text{ kWh} \checkmark \text{MA}$ $= 60,4 \text{ kWh} \checkmark \text{CA}$ Not valid $\checkmark \text{O}$	1MA subtracting 1CA simplification 1O opinion. (3)	F L4 E
2.2.1	Annual taxable income $R36\,780 \times 12 \checkmark \text{MA}$ $= R\,441\,360,00 \checkmark \text{A}$ Tax bracket 3 $\checkmark \text{MCA}$	1MA multiplying by 12 1A simplification 1MCA tax bracket AO (3)	F L2 E
2.2.2	Use tax bracket 3 $\checkmark \text{O}$ Highest amount at tax bracket 3 = 512 800 $\checkmark \text{RT}$ Formula for tax bracket 3: $77\,362 + 31\% \text{ of taxable income above } 370\,500$ $= R77\,362 + 31\% \text{ of } (R512\,800 - R370\,500) \checkmark \text{SF}$ $= R77\,362 + 0,31 \times (R142\,300) \checkmark \text{MCA}$ $= R77\,362 + R\,44\,113 \checkmark \text{CA}$ $= R121\,475$	1O choose to use tax bracket 3 above 1RT maximum value for tax bracket 3 used. 1SF substitution 1MCA simplification 1CA add the values (5)	F L3 D
2.2.3	Gratuity = $R42\,270 \times \frac{15}{26} \times 29 \checkmark \text{SF}$ $= R\,707\,209,6154 \checkmark \text{A}$ $= R\,707\,209,6154 \times \frac{16}{100} \checkmark \text{MCA}$ $= R113\,153,54 \checkmark \text{CA}$	1SF Substitution 1A simplification 1MCA multiplying by 16% 1CA simplification (4)	F L2 M
2.2.4	Interest after 1 year = $R\,25\,600 \times 8,60\%$ $= R2\,201,60 \checkmark \text{MA}$ Amount after 1 year = $R25\,600 + R2\,201,60$ $= R27\,801,60 \checkmark \text{A}$ Interest for full 2 nd year = $R27\,801,60 \times 8,60\%$ $= R2\,390,9376 \checkmark \text{CA}$ $\therefore \text{ interest for } \frac{1}{2} \text{ year} = \frac{R\,2\,390,9376}{2} \checkmark \text{MCA}$ $= R1\,195,4688 \checkmark \text{CA}$ Amount of the fixed deposit $= R27\,801,60 + R1\,195,4688$ $= R28\,997,07 \checkmark \text{CA}$	1MA calculating interest for 1 st year 1A simplification 1CA for 2 nd year 1MCA half year 1 CA simplification 1CA simplification	F L3 D



	OR Interest after 1 year = R 25 600, × 8,60% = R2 201,60 ✓MA Amount after 1 year = R25 600 + R2 201,60 = R27 801,60 ✓A 2nd year interest rate = $\frac{8,60\%}{2}$ = 4,3% ✓CA Interest for $\frac{1}{2}$ year = R27 801,60 × 4,3% = R1 195,44 ✓MCA Amount of the fixed deposit = R27 801,60 + R1 195,4688 ✓MCA = R28 997,07 ✓CA OR Amount after 1 year = R 25 600,00 × 108,6% ✓MA = R27 801,60 ✓A 2nd year interest rate = $\frac{8,06\%}{2}$ = 4,3% ✓CA ✓MA Amount for $\frac{1}{2}$ year = R27 801,60 × 104,3% ✓MCA = R28 997,07 ✓CA	OR 1MA calculating interest for 1st year 1A simplification 1CA for 2nd year 1MCA half year 1MCA adding values 1CA simplification OR 1MA calculating interest for 1st year 1A simplification 1CA for 2nd year 1MCA half year 1MA multiply with 104,3% 1CA simplification (6)	
2.3.1	Public Primary ✓✓A	2A correct item (2)	F L1 D
2.3.2	Percentage Change = $\frac{\text{New price} - \text{old price}}{\text{old price}} \times 100\%$ ✓RT = $\frac{37\,840\,000 - 39\,236\,000}{39\,236\,000} \times 100\%$ ✓SF = - 3,56% ✓A	1RT correct values 1SF substitution 1A answer NPR [No penalty for omitting million] (3)	F L2 M
2.3.3	✓RT = 597 063 000 × $\frac{0,512}{100}$ ✓MA = R 3056 962,56 ✓CA Actual Expenditure = R597 063 000 – R 3 056 962,56 ✓MCA = R594 006 037,40 ✓CA Valid ✓O	1RT correct value 1MA multiplying 597 063 000 by 0,512% 1CA simplification 1MCA subtracting values 1CA simplification 1O opinion (6)	F L4 M
		[44]	



QUESTION 3 [23 MARKS]			
3.1.1	65 cm ✓✓A	2RT reading from chart (2)	D L2 E
3.1.2	✓RT ✓RT Between 10 th and 25 th Percentile	2RT correct percentiles (2)	D L2 E
3.2.1	D✓✓A	2A correct option (2)	D L1 E
3.2.2	Range = Maximum value – Minimum value ✓RT = 179 968 – 14 152 ✓MA = 165 816 ✓A	1RT correct values 1MA concept of range 1A simplification (3)	D L2 E
3.2.3	The number of grade 10 learners in the Northern Cape is more less than ✓O the second lowest number of grade 10 from Free state with 65 970 in the data set. ✓O	2O conclusion (2)	D L4 M
3.2.4	Mean of grade 11 = ✓MA $\frac{120\,993 + 451\,56 + 166\,069 + 240\,146 + 125\,357 + 84\,902 + 161\,89 + 53\,708 + 75\,494}{9}$ $= \frac{928\,050}{9}$ $= 103\,116,6667 \quad \checkmark \text{ CA}$ Difference = 103 116,6667 – 81122,78 ✓MCA = 21 993,89 ✓CA Not valid ✓O	1MA concept of mean 1CA simplification 1MCA difference 1CA answer 1O conclusion (5) NPR	D L4 M
3.2.5	✓RT = $\frac{125\,375}{928\,050} \times 100\%$ ✓MCA = 13,51% ✓CA	CA the total grade 11 learners from Question 3.2.4 1RT 125 375 1MCA concept of percentage 1CA answer NPR (3)	P L2 M
3.2.6	✓✓O Number of learners decrease from grade 10 to 12 in all Provinces Drop out from school/ Failure rate. ✓✓O	2O decrease 2O conclusion (4)	D L4 D
[23]			



QUESTION 4 [13 MARKS]			
Q	Solution	Explanation	T/L
4.1.1	The exchange rate where one unit of a foreign currency is expressed in terms of South African rand. ✓✓A OR It is what one foreign currency is worth in terms of rands. ✓✓A	2A explanation (2)	F L1 E
4.1.2	Indian Rupee ✓✓RT	2RT correct currency (2)	F L1 E
4.1.3	Amount in Canadian dollar 1R = 0,077572 ✓RT $= \frac{0,077572 \text{ CAD}}{\text{R1}} \times \text{R1670,00} \checkmark \text{MA}$ = 129,54524 CAD ✓A OR 1CAD = R12, 891276 ✓ RT $= \frac{\text{R1670,00}}{\text{R12,891276}} \times 1\text{CAD} \checkmark \text{MA}$ = 129,54524 CAD ✓A	1RT identifying correct exchange rate 1MA multiplying by the exchange rate 1A simplification OR 1RT Identifying correct exchange rate 1MA multiplying by the exchange rate 1A simplification (3)	F L2 E
4.2.1	196,95 million ✓✓A	2A correct value (2)	D L2 E
4.2.2	52,58 = Q3 – Q1 ✓MA ✓RT 52,58 = Q3 – 180,16 Q3 = 180,16 + 52,58 ✓MA Q3 = 232,74 million ✓CA	1MA concept of IQR 1RT correct value (Q1) 1MA changing the subject of the formula 1CA simplification (4)	D L3 E
		[13]	
		TOTAL: 100	

