education

Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

PROVINCIAL ASSESSMENT

GRADE 10

MATHEMATICAL LITERACY P1

NOVEMBER 2024

MARKING GUIDELINES

MARKS: 75

Symbol	Explanation
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
NPU	No penalty for omitting the unit, but a wrong unit is penalised
AO	Answer only
RCA	Rounding consistent with accuracy

These marking guidelines consists of 7 pages.

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 penalize for every extra item presented.
- General principle of marking, if a candidate makes one mistake one mark is deducted.
- Rounding is an independent mark.
- A conclusion mark can only be given if relevant calculations precedes it.

Q	Solution	Explanation	T/L
QUESTION 1 [14 MARKS] Answer only AO – full marks
1.1	A budget is a summary of the expected income and expenditure for the month. ✓✓A	2A definition of budget (2)	F L1
1.2	Twenty one thousand three hundred and fifty ✓A rand ✓A	1A correct wording 1A rand (2)	F L1
1.3	Christmas gifts ✓✓A	2A correct answer (2)	P L1
1.4	R5 500 × 2 ✓M = R11 000 ✓A **OR** R5 500 + R5 500 ✓M = R11 000 ✓A	1MA multiply by 2 1A correct answer **OR** 1MA adding the same amount 1A correct answer (2)	F L1
1.5	Rent payment ✓✓A	2A correct name **If R5 500 is given, ONE mark** (2)	F L1
1.6	R850 ✓✓A	2A correct answer (2)	D L1
1.7	Questionnaire ✓✓A	2A answer (2)	D L1
		[14]	

QUESTION 2 [27 MARKS]

Q	Solution	Explanation	T/L
2.1.1	179462 ✓✓RT **Accept:** Orkney (179462) ✓✓RT	2RT correct answer **If only Orkney is given, ONE mark** (2)	F L1
2.1.2	✓MA ✓MA R14 680,00 + R57,00 – R2 700,00 ✓RT = R12 037,00 ✓CA	1RT correct values 1MA add R57,00 1MA subtract R2 700 1CA answer (4)	F L2
2.1.3	R940,00 + R1 660,00 ✓RT ✓M = R2 600 ✓A	1RT both correct values 1MA adding 1A answer (3)	F L2
2.1.4	$\dfrac{557{,}50}{28\,000} \times 100$ ✓RT ✓M = 1,99% ✓CA = 2%	1RT correct values 1M concept of % 1CA answer **NPR** (3)	F L2
2.1.5	$\dfrac{4}{8}$ ✓A✓A = 0,5 ✓CA	1A numerator 1A denominator 1CA answer (3)	P L3
2.1.6	R3,50 + (R1,50 × $\dfrac{1\,300}{100}$) ✓C ✓SF = R3,50 + R19,50 = R23,00 ✓CA His statement is NOT VALID/INVALID ✓O **OR** R3,50 + (R1,50 × 13) ✓C ✓SF = R3,50 + R19,50 = R23,00 ✓CA His statement is NOT VALID/INVALID ✓O	1C conversion (no. of R100's) 1SF correct substitution 1CA answer 1O Opinion **OR** 1C conversion (no. of R100's) 1SF correct substitution 1CA answer 1O Opinion (4)	F L4

2.2	1st year: R2 000 × 7,5% × 1 ✓M = R150 Half year: R2 000 × 7,5% × 0,5 ✓M = R75 Interest: R150 + R75 = R225 ✓S Total amount = R2 000 + R225 = R2 225 ✓CA **OR** R2 000 × 7,5% × 1,5 ✓M ✓C = R225 ✓S Total amount = R2 000 + R225 = R2 225 ✓CA **OR** R2 000 × $\frac{7,5\%}{12}$ × 18 months ✓M ✓C = R225 ✓S Total amount = R2 000 + R225 = R2 225 ✓CA	1M calculate 7,5% for the year 1M calculate 7,5% for a half year 1S simplify 1CA answer **OR** 1M calculate 7,5% for the year 1C conversion to 1,5 years 1S simplify 1CA answer **OR** 1M calculate 7,5% 1C conversion to 1,5 years 1S simplify 1CA answer (4)	F L3
2.3	VAT included: R2 400 × 115% **OR** 1,15 **OR** $\frac{115}{100}$ ✓M = R2 760 Price increase: R2 760 × 110% **OR** 1,1 **OR** $\frac{110}{100}$ ✓M = R3 036 ✓CA His claim is NOT VALID/INVALID. ✓O **OR** VAT included: R2 400 × 15% **OR** 0,15 **OR** $\frac{15}{100}$ = R360 ∴ R2 400 + R360 = R2 760 ✓M Price increase: R2 760 × 110% **OR** 1,1 **OR** $\frac{110}{100}$ ✓M = R3 036 ✓CA His claim is NOT VALID/INVALID. ✓O	1M adding VAT 1M adding price increase 1CA answer 1O opinion **OR** 1M adding VAT 1M adding price increase 1CA answer 1O opinion (4)	F L4
		[27]	

QUESTION 3 [18 MARKS]			
Q	**Solution**	**Explanation**	**T/L**
3.1.1	Pie chart ✓✓A	2A answer (2)	D L1
3.1.2	Categorical ✓✓A	2A correct answer (2)	D L1
3.1.3	35% + 9% + 6% + 15% + 24% + 3% ✓MA = 92% ∴100% − 92% ✓M = 8% ✓CA	1MA adding % 1M subtract from 100 1CA answer **NPU** (3)	D L2
3.1.4	350 × 24% **OR** $\frac{24}{100}$ ✓MA = 84 cars ✓A	1MA multiply 1A correct answer (2)	D L2
3.1.5	More visible on the road/It could make you easier to spot ✓✓O **OR** It can hide imperfections well ✓✓O **OR** When re-paint after an accident, white colour matches more easily ✓✓O **OR** A white car can improve your car's resale value ✓✓O **OR** White paint can make your car cool (in terms of temperature) ✓✓O **OR** It can show off a car's lines (appearance) ✓✓O **OR** White car paint is cheaper than colourful ones ✓✓O **Accept any other relevant ANSWER**	2O reason (2)	D L4

3.2.1	$$\frac{4,1 + 4,3 + 5,8 + 4,1 + 2,9 + 5,1 + 3,6 + 2,5 + 4,7 + 4,4 + 4,2 + 5,0}{12}$$ ✓MA $$\frac{50,7}{12} \checkmark \text{MA}$$ $= 4,225 / 4,23 / 4,2 / 4$ ✓CA	1MA adding 1MA concept of mean 1CA answer **NPR** (3)	D L2
3.2.2	✓RT $2,5 ; 2,9 ; 3,6 ; 4,1 ; 4,1 ; \boxed{4,2 ; 4,3} ; 4,4 ; 4,7 ; 5,0 ; 5,1 ; 5,8$ ✓MA Middle value: $$= \frac{4,2 + 4,3}{2} \quad \checkmark \text{MA}$$ $= 4,25$ ✓CA	1RT correct values 1MA correct order 1MA concept of median 1CA answer (4)	D L3
		[18]	

QUESTION 4 [16 MARKS]

Q	Solution	Explanation	T/L
4.1.1	15% ✓✓ A	2A answer (2)	F L1
4.1.2	✓RT $R27,80 \times \frac{100}{106}$ ✓MA = R26,23 ✓CA **OR** ✓RT $R27,80 \div 1,06$ ✓MA = R26,23 ✓CA	1RT correct value 1MA multiply 1CA answer Check correct rounding **OR** 1RT correct value 1MA dividing 1CA answer Check correct rounding (3)	F L2
4.1.3	✓MA ✓MA ✓CA 0 to 6 = 6 kl: 6 × R27,80 = R166,80 6 to 18 = 12 kl: 12 × R34,06 = <u>R408,72</u> Total R575,52 ✓CA His statement is TRUE/CORRECT ✓O	1MA multiply correct kl 1MA correct rates 1CA simplification 1CA answer 1O opinion (5)	F L4
4.2.1	0% / Zero / No chance / Impossible / $\frac{0}{12}$ ✓✓A **Do not accept: No probability**	2A correct answer (2)	P L2
4.2.2	16, 14, 19, 17, 19, 17, 22, 15, 20, 17, 19, 18 ✓✓RT **OR** 14, 15, 16, 17, 17, 17, 18, 19, 19, 19, 20, 22 ✓CA Mode = 17 & 19 ✓CA	2RT all values listed correct 1CA 17 1CA 19 (4)	D L3
		[16]	
		TOTAL: 75	