NATIONAL SENIOR CERTIFICATE

GRADE 10

NOVEMBER 2017

MATHEMATICAL LITERACY P1 MARKING GUIDELINES

MARKS: **75**

Symbol	Explanation
M	Method
A	Accuracy
CA	Consistent accuracy
RT/RG/RM	Reading from a table/graph/map
SF	Correct substitution in a formula
P	Penalty, e.g. for no units, incorrect rounding off etc.
S	Simplification
R	Rounding off
AO	Answer only

This marking guideline consists of 6 pages.

QUESTION 1			
Quest	**Solution**	**Explanation**	**Level**
1.1			
1.1.1	Inverse/Indirect proportion ✓✓	2M Correct Answer (2)	L1
1.1.2	$\frac{40}{10} : \frac{10}{10}$ ✓ = 4 : 1 ✓	1M Divide by 10 1 CA AO (2)	L1
1.1.3	Direct proportion ✓✓	1M Correct Answer (2)	L1
1.2			
1.2.1	Cost price = $\frac{R42{,}00}{12}$ ✓ = R3,50 ✓	1M Method 1CA Correct Answer (2)	L1
1.2.2	% profit = $\frac{\text{Selling price} - \text{Cost price}}{Cost\ price} \times 100\%$ = $\frac{\text{R5,00} - \text{R3,50}}{R3{,}50} \times 100\%$ ✓ = $\frac{\text{R1,50}}{R3{,}50} \times 100\%$ ✓ = 42,8571% = 42,86% ✓	1SF Substitution 1M Mark for R1,50 1CA Answer (3)	L2
1.3			
1.3.1	Four thousand nine hundred and ninety nine rand ✓✓	2M Correct Answer (2)	L1
1.3.2	Deposit = 10% of R4 999 = $\frac{10}{100} \times R4\,999$ ✓ = R499,90 ✓	1M Multiply by the correct %(10 ÷ 100) 1CA Correct Answer (2)	L1

1.3.3	Total amount = R499,90 ✓ + R369,89 × 24 ✓ = R9 377,26 ✓	1M Addition 1M Multiply by 24 1A Answer (3)	L2
		[18]	
QUESTION 2			
2.1	Buffalo City Metropolitan Municipality ✓✓	2RT Reading from the table (2)	L1
2.2	19/05/2017 ✓✓	2RT Reading from the table (2)	L1
2.3	Payment/Credit/Amount paid ✓✓ **Accept any relevant explanation**	2Explanation (2)	L1
2.4	14% of R184,21 = $\frac{14}{100}$ × $R184{,}21$ ✓ = R25,7894 ≈ R25,79 ✓	1M Method 1R Rounding Answer Only Full marks (2)	L1
2.5	Cost = (6 Kl × 11,917550) + (4 Kl × $12{,}151250$) + (3Kl ×16,876510) ✓ = 71,5053 + 48,605 + 50,62953 ✓ = R170,73983 = R170,74 ✓	1M Method 1M Addition 1CA Answer (3)	L3

2.6	Value A = R1 285,98 + R62,81 ✓✓ = R1 348,79 ✓ OR Value A = (R1 433,18 – R800 – R12,15) ✓+ (R45 + R216,40 + R210 + R136,93 + R119,43) ✓ = R621,03 + 727,76 = R1 348,79 ✓	2M Addition 1CA Answer 1M Addition 1M Simplification 1CA Answer (3)	L1
		[14]	
QUESTION 3			
3.1			
3.1.1	Spoon ✓✓ (i.e. 4 × 10 ml) Accept teaspoons (i.e. 8 teaspoons = 8 × 5 ml)	2A Answer (2)	L1
3.1.2	24 ÷ 8 = 3 ✓ = 7 ml × 3 ✓ = 21 ml ✓ OR $7\ ml : 8\ cupcakes$ $x : 24\ cupcakes$ 8 x = 24 × 7 ✓ $x = \frac{24 \times 7}{8}$ ✓ x = 21 ml ✓	2M Method 1A Answer (3)	L2
3.1.3	$°C = \frac{(°F - 32°)}{1,8}$ $°C = \frac{(356° - 32°)}{1,8}$ ✓ $°C = \frac{324°}{1,8}$ ✓ $°C = 180°$ ✓	1SF Substituting Formula 1S Simplifying 1A Answer (3)	L2

3.2			
3.2.1	Perimeter is the distance around a 2-Dimensional shape ✓✓ **Accept any relevant answer**	2A Answer (2)	L1
3.2.2	V = $l \times w \times h$ V = 40 cm × 20 cm × 6 cm ✓ V = 4 800 cm^3 ✓	1SF Substituting Formula 1CA Correct Answer (2)	L2
		[12]	
QUESTION 4			
4.1	South-East (SE) ✓✓	2CA Correct Answer (2)	L1
4.2	Eight windows/ 8 windows ✓✓	2CA Correct Answer (2)	L1
4.3	Seven interior doors/ 7 interior doors ✓✓	2CA Correct Answer (2)	L1
4.4	$l = 4{,}5\ cm\ /45\ mm$ ✓ $w = 2{,}5\ cm\ /25mm$ ✓	2CA Correct Answer **Accept 4,3 – 4,7cm** **2,3 – 2,7cm** (2)	L1
4.5	Actual length = 4,5 cm × 120 ✓ Actual width = 2,5 cm × 120 Actual area = 5,4 m × 3,0 m ✓ Actual area = 16,2 m^2 ✓ OR Actual area = 540 cm × 300 cm ✓ = 162 000 cm^2÷ 10 000 ✓ = 16,2 m^2 ✓	2M Method Calculating actual length and width 1CA Correct Answer 1M Method 1M Dividing by 10 000 1CA Correct Answer (3)	L2
		[11]	

QUESTION 5

5.1			
5.1.1	17; 22; 25; 32; 34; 34; 39; 39; 42; 45; 47; 47; 47; 48; 50; 54; 62; 64; 67 ✓✓	2 Arrange values Ascending (2)	L1
5.1.2	Median = 45 ✓✓	2 Correct value Median (2)	L1
5.1.3	Mode = 47 ✓✓	2 Correct value Mode (2)	L1
5.1.4	Range = 67 – 17 ✓ = 50% ✓	1M Subtraction 1M Answer (2)	L3
5.1.5	$\text{Mean} = \frac{17+22+25+32+34+34+\cdots+47+48}{19}$ ✓ $= \frac{815}{19}$ ✓ = 42,894768 ≈ 43 ✓	1M Adding value 1M Dividing by 19 1R Rounding (3)	L2
5.1.6	P (less than 30%) = $\frac{3}{19}$ ✓ × 100% ✓ = 15,789 ✓ ≈ 16% ✓	1M Fraction 1M Multiply by 100% 1M Answer 1M Rounding (4)	L2
5.2	**Interval** / **Tally** / **Frequency** 0–29 / /// / 3 30–39 / ~~////~~ / 5 40–49 / ~~////~~ / / 6 50–59 / // / 2 60–69 / /// / 3 **Total** / / 19	2 answers correct 1 mark 3 answers correct 2 marks 4 answers correct 3 marks 5 answers correct 4 marks Total correct 1 mark (5)	L2
		[20]	
	TOTAL:	**75**	