education

Department:
Education
PROVINCE OF KWAZULU-NATAL

MATHEMATICAL LITERACY P1

COMMON TEST

JUNE 2019

MARKING GUIDELINE

NATIONAL SENIOR CERTIFICATE

GRADE 11

MARKS: 75

SYMBOL	EXPLANATION
M	Method
MA	Method with accuracy
MCA	Method with consistent accuracy
CA	Consistent accuracy
A	Accuracy
C	Conversion
S	Simplification
RT/RG/RD	Reading from a table/ graph/ diagram
NPR	No penalty for units/rounding
SF	Correct substitution in a formula
O	Opinion/ reason/deduction/example
J	Justification
R	Rounding off
F	deriving a formula
E	Explanation
U	Units
AO	Answer only full marks

This marking guideline consists of 6 pages.

QUESTION 1 [26 MARKS]

	Solutions	Explanation	
1.1.	Item number: 783461 ✓✓RD	2RD Item number (2)	F L1
1.2	Number of years = $\frac{36}{12}$ ✓ MA = 3 ✓A	1MA dividing 36 by 12 1A correct year **AO** (2)	F L1
1.3	= 139 ÷ 100 ✓C = 1.39m ✓A	1C Dividing by 100 1A Size in metres **AO** (2)	F L1
1.4	2 years warranty ✓ ✓ RD	2RD reading correct years (2)	F
1.5	5 days ✓✓ A	2A correct no. of days (2)	F
1.6	R12 999 + R4300 ✓MA = R17 299 ✓A	1MA adding R4300 1A original price **AO** (2)	F
1.7.	Amount saved = $\frac{\text{R4300}}{\text{R12999}}$ x 100 ✓MA ✓M = 33.079% ✓ CA = 33,1% ✓R	1MA for dividing correct values 1M Percentage concept 1CA Percentage 1R rounding (4) **AO**	F
1.8	Total amount = R570 x 36 ✓MA = R 20 520 ✓A	1MA Multiplying by 36 1A Total Amount **AO** (2)	F L1
1.9.	Amount saved = R20 520 – R12 999 ✓M = R7 521 ✓CA	1M Subtraction 1CA Amount saved **AO** (2)	F L1

QUESTION 1			
	Solutions	**Explanation**	**L/T**
(a)	Interest rate is the percentage used to calculate the amount of interest that is either earned or charged. ✓✓D	2D correct definition (2)	L1 F
(b)	R300 000 x $\frac{3,5}{100}$ x 2 ✓✓✓ M = R21000 ✓CA **OR** Interest = $\frac{3,5}{100}$ x R300 000 ✓✓M = R 10 500 x 2 ✓M = R21 000 ✓CA	1M dividing 3,5 by 100 1M multiplying by R300 000 1M multiplying by 2 1CA interest **OR** 1M dividing 3,5 by 100 1M multiplying by R300 000 1M multiplying by 2 1CA interest (4)	L2 F
		[26]	

QUESTION 2 [15 MARKS]			
Ques	**Solutions**	**Explanation**	**L/T**
2.1.1	N2 ✓✓ RD	2RD Reading from the map (2)	M&P L1
2.1.2	Atlantic Ocean ✓✓ RD	2RD Reading from the map (2)	M&P L1
2.1.3	3 ✓✓A	2A correct number of roads. (2)	M&P L1
2.1.4	East London ✓ A Umtata ✓ A	2A correct towns (2)	M&P L1
2.1.5	North East ✓✓ A	2A correct direction (2)	M&P L1
2.1.6	Bar s scales are quick and easy to use ✓✓ A Or any other valid answer	2A correct answer (2)	M&P L1
2.1.7	2.2cm:300km ✓ M 7cm:Actual distance(km) Estimated distance = $\frac{7 \times 300}{2.2}$ ✓M ✓M = 954.55km ✓A	1M distance 1M Multiplication 1M Dividing 1A Distance (4)	M&P L2
2.1.8	Time = $\frac{954,55 \text{ km}}{110 \text{ kmh}}$ ✓SF = 8,677 hours ✓CA = 9 hours ✓R	**CA from 2.1.7** 1SF correct substitution 1CA correct hours 1R rounding (3)	M L2
2.2.1	Distance = $\frac{66 \times 100}{14,8}$ ✓M ✓M = 445,94 km ✓A	1M multiplying 60 by 100 1M dividing by 14,8 1A for correct distance (3)	M&P L2
2.2.2	R66ℓ x R16,23 ✓M = R1071,18 ✓ CA	1M multiplying R15,60 x 60 1CA for cost (2)	F L1

2.2.3	Return trip = 954,55 km x 2 ✓ M = 1909,10 km ✓ CA $\frac{14.8 \times 1909,10}{100}$ ✓M ✓M Cost of fuel = R282,5468 x R16,23 ✓M = R4585,73 ✓ CA **OR** Return trip = 954,55 km x 2 ✓ M ✓M = 1909,10 km ✓ CA Cost of fuel = $\frac{66 \times 1909,10}{445,945}$ ✓ M ✓ M = 282,5468 x R16,23 ✓ M = R4585,73 ✓ CA	1M multiplying by 2 1CA correct distance 1M multiplying by 14.8 1 M dividing by 100 1M multiplying by R16,23 1CA cost of fuel **OR** 1M multiplying by 2 1CA correct distance 1M multiplying by 60 1 M dividing by 800 1M multiplying by R15,60 1CA cost of fuel (6)	F L3
2.2.4	18°C =(°F -32) ✓ SF 18 x 1,8= °F -32 32,2+32= °F ✓S °F=64,4 ✓ CA	1SF correct substitution 1S simplification 1CA correct temperature (3) **[33]**	M L2

QUESTION 3 [16 MARKS]

	Solutions	Explanation	
3.1.	1 : 2✓✓ A	2A correct ratio (2)	M L1
3.2	60 kg x 1000 = 60 000 g ✓ C $\frac{60000 \times 500}{400}$ ✓M ✓ M 75000 ÷ 1000 ✓ M = 75 ℓ ✓ CA	1 C conversion 1M multiplying by 500 1M dividing by 400 1M dividing by 1000 1CA correct answer (5)	M L2
3.3.1	The maximum amount an object can hold.✓✓D	2 D correct definition (2)	M L1
3.3.2	Diameter = 40 cm x 2 = 80 cm ÷ 100 ✓ MA = 0,8 m ✓ A	1 MA multiplying radius by 2 1A correct answer (2)	
3.3.3	Volume = 3,142 x (40 cm)^2 x 100 cm ✓ C = $\frac{502720 cm^3}{1000}$ ✓ M = 502,72 ℓ ✓CA =502 ℓ ✓R	1C conversion 1M dividing by 1000 1CA correct volume 1 R rounding (5) **[16]**	M L2

TOTAL MARK: [75]