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NATIONAL SENIOR CERTIFICATE

GRADE 10

MATHEMATICAL LITERACY

COMMON TEST

JUNE 2022

MARKING GUIDELINE

MARKS: 100

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SYMBOL	EXPLANATION
M	Method
MA	Method with accuracy
CA	Consistent accuracy
A	Accuracy(Answer)
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
О	Opinion/ reason/deduction/example
J	Justification
R	Rounding off/
F	deriving a formula
Е	Explanation
U	Units
AO	Answer only full marks

This marking guideline consists of 5 pages.

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	QUESTION 1 [28 MARKS]	ANSWER ONLY FULL MARKS		
QUE	SOLUTION	EXPLANATION		TL
1.1.1	Mode is the type of a car that appear more than the other cars ✓ A	2A, Answer	(2)	L1 DH
1.1.2	Observation ✓✓ A	2A, Answer	(2)	L1 DH
1.1.3	Discrete ✓✓A	2A, Answer	(2)	L1 DH
.1.4	1 1 1 1 1 1 1 1 2 2 7√√A	2A, Answer	(2)	L1 DH
1.1.5	1 : 2 ✓ ✓ A	2A, Answer	(2)	L1 F
.1.6	19 ✓ ✓ A Stormorephysics.com	1A, Answer	(2)	L1 DH
1.1.7	P (Dodge) = $\frac{1}{19}$ OR 0,05 OR 5,26% \checkmark A	2 A, Answer	(2)	L1 P
1.1.8	Amount received $= 50 \times 7 \checkmark M$ $= R350 \checkmark A$	1M., multiplying all correct values 1A, Answer	(2)	L1 F
1.2.1	Beurer Kitchen Scale KS 25✓✓A	2A, Answer	(2)	L1 M
1.2.2	Grams✓✓A	2A, Answer	(2)	L1 M
1.2.3	3000g✓✓A	2A, Answer	(2)	L1 M
.2.4	\checkmark M $5 \times 12 = 60 \text{ months} \checkmark$ A	1M, multiplying by 12 1A, Answer	(2)	L1 M
1.2.5	$P(\frac{1}{7}) = 0.14 \checkmark \checkmark A$	2 A, Answer	(2)	L1 P
1.2.6	Number Scale A	1M., multiplying all correct values 1A, Answer		L1 MP
			(2) [28]	

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QUE	QUESTION 2 [22 MARKS]	EXPLANATION		L
2.1.1	Monthly Income is the income received by Miss Nkala per month ✓✓A	1A, Answer	(2)	L1 F
2.1.2	A = $\frac{9}{100} \times R32\ 150 \checkmark MA$ A = R 2893,50 \checkmark \(\sigma\)	1MA, multiplying correct values 2A,answer AO		L2 F
2.1.3	$ √M $ Total Expenditure = (R1 260 + R5 600 + R2 320 + R1 420 + R340 + R1 150 + R2 950 + R1 400 + R2 900 + R 850 + R1 250 + R900 + R800 + R750 + R2 893,50) $= R26 783,50 \checkmark \checkmark A$	CA from 2.1.2 1M, adding all value 2A, Answer	(3)	L3 F
2.1.4 a)	Option 1 = $R750 \times 3\checkmark M$ = $R2\ 250\checkmark A$ Option 2 = $R1400 \times 3\checkmark M$ = $R4\ 200\checkmark A$	1M, multiplying correct values 1A, answer 1M, multiplying correct values 1A, answer	(0)	L3 F
b)	∴ Option 1 is the cheapest ✓ J Access to many entertainment facilities ✓ ✓ A OR All meals are included ✓ ✓ A	1J, justification 2A, reasoning	(5)	L4 F
2.2.1	Accept any valid reason		(2)	1.2
2.2.1	6h30min = 7hours R45✓✓RT	2RT,Answer	(2)	L2 F
2.2.2	$ \begin{array}{ll} \text{Cost} &= 6 \times 100 \checkmark \text{M} \\ &= \text{R}600 \checkmark \text{A} \end{array} $	1M, multiplying correct 1A, Answer		L3 F
	Lost ticket = R 500 ✓ RT ∴ Claim is valid ✓ ✓ O	1RT, lost ticket 2O, conclusion	(5)	
			[22]	

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	QUESTION 3[13 MARKS]			
QUE	SOLUTION	EXPLANATION		TL
3.1	Mode $10A = 30 \checkmark \checkmark A$	2A, Answer	(2)	L1 DH
3.2	44 35 32 30 30√√A	2A, all values correctly arranged	(2)	L2 DH
3.3	$ 10\% = 5\checkmark A 10\% \times 10 = 100\% \checkmark M 5 \times 10 = 50 \checkmark \checkmark A $	1A, 10% =5Answer 1M, multiplying 10% × 10 2A, Answer		L3 F
		AO	(4)	
3.4	Grade 10 B ✓ A The highest learners if from 10B. ✓ ✓ E	1A, choice 2E, explanation		L4 DH
	Any valid reason		(3)	
3.5	Range = $44 - 31 \checkmark M$ = $13 \checkmark A$	1M, subtracting correct value 1A,Answer	(2)	L2 DH
	1		[13]	

QUE	QUESTION 4 [19 MARKS]	EXPLANATION		L
4.1.1	Distance in km = $\frac{15000}{1000}$ \checkmark M	1M, diving by 100		L1 MP
	=15 km√A	1A, Answer	(2)	
4.1.2	South or South West ✓ A	2A, answer	(2)	L2 MP
4.1.3	KwaZulu- Natal ✓ ✓ A	2A, Answer	(2)	L2 MP
4.1.4	Number of hours $= \frac{330 \text{ km}}{120 \text{ km}} \checkmark \text{MA}$ $= 2,75 \text{h} \checkmark \text{S}$ $= 2\text{h}45 \text{minutes} \checkmark \text{A}$	1MA,dividing 1S,Simplification 1A, Answer in hour and minutes	(3)	L3 MP
4.2.1	 Empangeni ✓RT Richards Bay ✓RT 	1RT, correct town 1RT, correct town	(2)	L2 MP
4.2.2	Number of litres = $\frac{660km}{R19,63}$ \checkmark MA = 33,62 l \checkmark A $\approx 34 l$ \checkmark R	1MA, dividing correct values 1A, Answer 1R, correct rounding	(3)	L2 MP

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NSC- Marking Guidenite			
4.2.3		CA from 4.2.2	L3
	Total Amount = $34 \times R19,83 \checkmark M$	1M, multiplying correct values	MP
	$= R673,20\checkmark A$	1A, Answer	
	$= R675,00 \checkmark R$	1R Rounding (3)	
4.2.4			L4
	Boarder√√A	2A,Answer	MP
		(2)	
		[19]	

	QUESTION 5[18 Marks]		
QUE	SOLUTION	EXPLANATION	TL
5.1			L1
	6 people ✓ ✓ A	2A, Answer	M
		(2)	
5.2		` '	L2
	Amount in millilitres =4 × 236,58 ✓ M	1M, multiplying correct values	M
	= 946,36 ml ✓ A	1A, answer	
	,	(2)	
5.3		` '	L3
	Total cooking time in minutes = 20minutes ✓ A	1A, adding preparation and cooking time	M
	Cooking time in hours = $\frac{20min}{60min} \checkmark C$	1C, converting minutes to hours	
	60min	1R, rounding	
	= 0,33 hours ✓ R	(3)	
5.4			L2
	$^{0}C = (^{0}F - 32) \div 1.8$		M
	= $(356 - 32) \div 1.8 \checkmark SF Stanmore physics.com$ = $(324^{\circ}) \div 1.8 \checkmark S$	1SF, correct substitution	
	$=(324^{\circ}) \div 1.8 \checkmark S$	1S, simplification	
	$= 180^{\circ} \text{C} \checkmark \text{A}$	1A, correct answer	
		(3)	
5.5			L4
	Number of ingredients = $\frac{36}{4}$ M	1M, dividing 36 by 6	M
	Number of ingredients = $\frac{36}{6}$ \checkmark M = 6		
	Baking duration for 36 people = $\frac{120 \text{ min}}{60 \text{ min}} \checkmark \text{C}$	1C, conversion	
	= 2 hours ✓ M	1A, Answer	
	The statement is valid ✓ O	1O, opinion	
		(4)	
5.6			L4
	To give a taste to the scones ✓✓A	2A, Answer	M
	Any valid reason		
		(2)	
5.7	Amount of lemonade = $300 \times 6\checkmark M$	1M, multiplying correct values	L2
	= 1800 <i>ml</i> ✓ A	1A, Answer	M
		(2)	
	·	[18]	•
		[100]	