KWAZULU-NATAL PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

MATHEMATICAL LITERACY

COMMON TEST

MARKING GUIDELINE

MARCH 2022

MARKS: 100

SYMBOL	EXPLANATION
M	Method
MA	Method with accuracy
CA	Consistent accuracy
A	Accuracy
C	Conversion
S	Simplification
RT/RG/RD/RM	Reading from a table/ graph/ diagram/Map
SF	Correct substitution in a formula
O	Opinion/ reason/deduction/example/Explanation
J	Justification
R	Rounding off
F	deriving a formula
AO	Answer only full marks
P	Penalty e.g. for units, incorrect rounding off etc.
NPR	No penalty for rounding / units

This marking guideline consists of 8 pages.

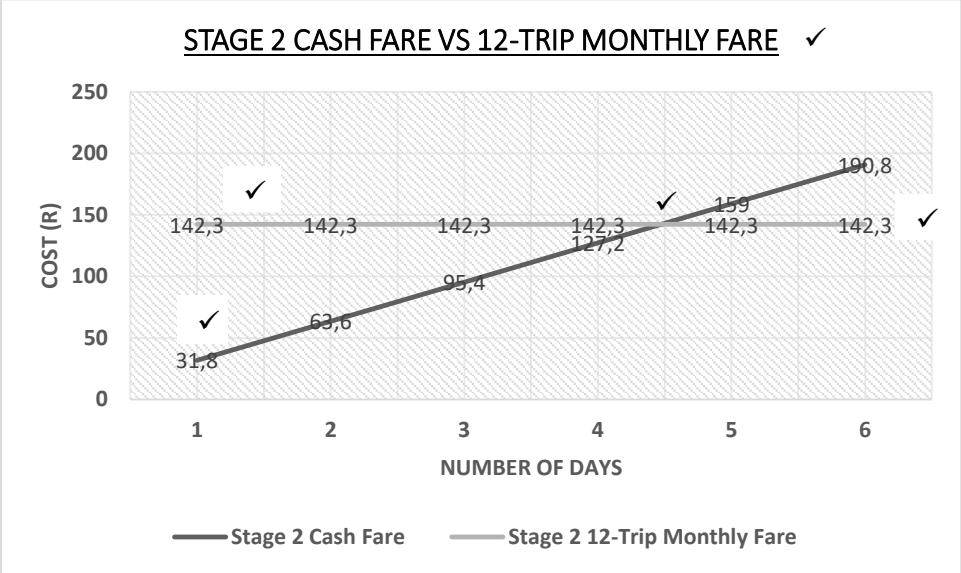
Copyright Reserved

QUESTION 1 [20 MARKS]			
No.	**Solution**	**Explanation**	**T&L**
1.1.1	It is the takkie price that has highest frequency✓✓A	2A correct definition (2)	D L1
1.1.2	R1 600; R1 600; R1 500; R1 400; R1 400; R1 400; R1 300; R1 300; R999✓✓A	2A descending order (2)	D L1
1.1.3	Range = R1600 − R999✓MA = R601✓A	1MA concept of range 1A correct answer (2)	D L1
1.1.4	Summarising data✓✓A **OR** Interpreting or Analysing data✓✓A	2A correct answer (2)	D L1
1.1.5	Categorical✓✓A	2A correct answer (2)	D L1
1.2.1	R2 405,67✓✓A	2A correct answer (2)	F L1
1.2.2	R8 690,50✓✓RT	2RT correct answer (2)	F L1
1.2.3	Total = R615,50 + R110,25 + R309,80✓MA = R1 035,55✓CA	1MA for adding CA answer (2) **AO**	F L1
1.2.4	X = R6 530,58 + R309,80 = R6 840,38✓A Y = R6 840,38✓CA 	1A for the value of X **CA from X** 1CA for the value of Y (2) **AO**	F L1
1.2.5	R480,00✓✓RT	2RT correct answer (2)	F L1
		[20]	

Copyright Reserved

QUESTION 2 [30 MARKS]			
2.1.1	Mr Ntuli overpaid by R50,41✓✓O **OR** The bank owes Mr Ntuli R50,41✓✓O	2O explanation (2)	F L1
2.1.2	To protect the client from being a victim of fraud✓✓O **OR** Protection of personal information✓✓O	2O reason (2)	F L4
2.1.3	Fees = R2 × (R350 ÷ R100)✓M = R2 × 3,5 = R2 × 4 = R8,00✓A The correct fee was charged✓O	1M dividing by R100 3,5 rounded up to 4 1A answer 1O opinion (3)	F L4
2.1.4	Total Credit = R500,00 + R50,41 + R2,50✓MA = R552,91✓A **OR** Total Credit = −R500,00 + (−R50,41) + (−2,50)✓MA = −R552,91✓A Total Debit = R350,00 + R18 503,49 + R8,00 + R9 827,18✓M = R28 688,67✓A Closing Balance = R28 688,67 − R552,91✓M = R28 135,76	1MA for adding 1A answer 1MA for adding 1A answer 1M for adding 1A answer 1M subtracting R552,91 (5)	F L3
2.1.5	Higher interest if the total outstanding is not paid in full within the 55 interest free days✓✓O **OR** Creating a bad credit rating if he fails to honour the payment agreement✓✓O	2O disadvantage 2O disadvantage (2)	F L4
2.2.1	It is the rate of charge for using Metro bus by customers. ✓✓A	2A explanation (2)	F L1
2.2.2	Return fare = 2 × R31,30✓M = R62,60✓A	1M multiplying by 2 1A answer (2)	F L2

Copyright Reserved

2.2.3	Return trip for Stage 2 $= R15,90 \times 2$ $= R31,80$✓A Total Cost $= 6 \times R31,80$✓M $= R190,80$✓CA	1A R31,80 1M multiplying by 6 1CA answer (3)	F L2
2.2.4		2A cash fare line 2A 12-trip monthly 1A Graph title (5)	F L3
2.2.5	(a) After 4 days✓✓RG	2RG reading from graph (2)	F L1
	(b) The 12 − trip monthly fare eventually works out cheaper✓✓O	2O opinion (2)	F L4
		[30]	

Copyright Reserved

QUESTION 3 [22 MARKS]			
3.1.1	✓RT Total number of People = 14 281 × 1000✓MA = 14 281 000✓A	1RT correct value 1MA multiplying by 1000 1A answer (3)	DH L2
3.1.2	Median = 41, 473, 623, 753, 791, 919, 1 057, 1 191, 1 813, 3 037✓A = (791+919) ÷ 2✓MA =855 000✓CA	1A arranging in order 1MA dividing by 2 1CA answer (3)	DH L2
3.1.3	✓ RT Average = 10 698 ÷ 10 ✓ MA =1069,8 = 1 069 800✓CA **OR** Average = $\frac{623+473+753+919+1\,813+41+1\,191+1\,057+3\,037+791}{10}$✓ M = $\frac{10\,698}{10}$✓ MA = 1 069,8 = 1 069 800✓ CA	1RT correct answer 1MA dividing by 10 1CA answer in thousands 1M adding values 1MA dividing by 10 1CA answer in thousands (3)	DH L3
3.1.4	Median✓ O It is not affected by the outlier. ✓✓O	1O opinion 2O explanation (3)	DH L4
3.1.5	3 471 = 3 534 – A✓ MA A = 3 534 – 3 471✓ M = 63 ✓ CA **OR** 3 471 000 = 3 534 000 – A✓ MA A = 3 534 000 – 3 471 000✓ M = 63 000✓ CA 	1MA Concept of range 1M simplification 1CA answer 1MA Concept of range 1M simplification 1CA answer **Accept 62** (3)	DH L4
3.2.1	2019✓✓RG	2RG correct year (2)	DH L2
3.2.2	Decrease from 2019 to 2020 ✓✓O	2O explanation (2)	DH L2

Copyright Reserved

3.2.3	Average = $\frac{6,5+4,3+5,2}{3}$ ✓RG✓M = 5,3% ✓CA	1RG adding values 1M dividing by 3 1CA average (3) Accept leeway of **2019(6,5% to 6,8%)** **2020(4,3% to 4,5%)** **2021(5,2% to 5,4%)**	DH L2
			[22]

Copyright Reserved

QUESTION 4 [28MARKS]

Q	Solution	Explanation	T &L
4.1.1	Annual taxable income = R39 500 × 12 ✓MA = R474 000✓A	1MA multiplying by 12 1A correct value (2)	F L2
4.1.2	✓A Annual tax = R110 739 + 0,36 (R474 000 – 467 500) ✓SF = R113 079✓CA Less Rebate = R113 079 – (R15 714) ✓MCA = R97 365✓CA Less Medical Aid credit = R97 365– (R332×12) ✓MCA = R93 381 Monthly tax = R93 381 ÷ 12 ✓MA = R7 781,75 ✓CA	1A correct tax bracket 1SF annual taxable income 1CA simplification 1MCA subtracting rebate 1CA simplification 1MCA subtracting medical credit for the year 1MA dividing by 12 1CA answer (8)	F L3
4.2.1	Difference in median salaries = R85 000 – R74 000✓RG✓M =R11 000✓A	1RG reading correct value 1M subtracting 1A answer (3) **Accept leeway of 2**	DH L2
4.2.2	IQR = 95 – 76 ✓RG✓SF = R19 000 ✓CA	1RG correct values 1SF substitution 1CA answer (3) **Accept leeway of 75 to 77**	DH L3
4.2.3	Q_3 of Law = 84 000 ✓RG Q2 of Business = 85 000✓RG The statement is CORRECT. ✓O	1RG correct value 1RG correct value 1O opinion (3) **Accept leeway of 2**	DH L4
4.3.1	Decrease = 6 000 – 3 000✓MA = 3 000 million or 3 000 000 000 or 3 billion✓A Most of the population received the vaccine✓O **OR** Any valid reason.	1 MA subtracting correct values 1A correct answer 1O opinion (3)	F L3

Copyright Reserved

4.3.2	Percentage of total budget $= \frac{3bn}{248,8bn} \times 100$✓MA $= 1,21\%$✓A Statement is INCORRECT✓O	1MA dividing correct values 1A correct answer 1O opinion (3) **Accept 2,41%**	F L3
4.3.3	Total population = (17 600 000 × 100) ÷ 29,7✓MA✓MA = 59 259 259,26 = 59 259 259 ✓A **OR** Unvaccinated = $\frac{17\ 600\ 000 \times 70,3}{29,7}$✓MA = 41 659 259,26 Total population = 41 659 259,26 + 17 600 000✓MA = 59 259 259,26 = 59 259 259✓A	1MA multiplying by 100 1MA dividing by 29,7 1A correct answer 1MA multiplying by 70,3 and dividing by 29,7 1MA adding 1A correct answer (3)	F L3
			[28]
		TOTAL 100 MARKS	

Copyright Reserved