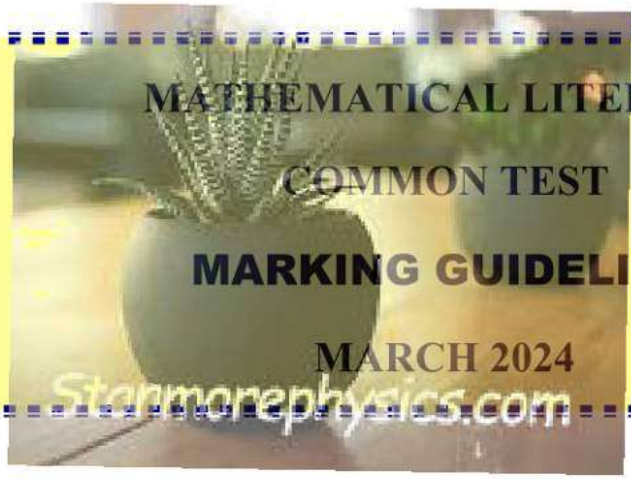
KWAZULU-NATAL PROVINCE

EDUCATION

REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12



MATHEMATICAL LITERACY

COMMON TEST

MARKING GUIDELINE

MARCH 2024

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
D	Correct definition

This marking guideline consists of 6 pages.

Copyright Reserved

NOTES:

- 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.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalise for every extra item presented.

QUESTION 1 [20 MARKS] ANSWER ONLY AO – FULL MARKS			
Ques	**Solution**	**Explanation**	**T & L**
1.1.1	$\text{Cost} = \text{R}168 \div 10\checkmark\text{M}$ $= \text{R}16{,}80\checkmark\text{A}$	1M dividing by 10 1A answer (2)	F L1
1.1.2	$\text{Comparison percentage} = \frac{\text{R}1\,503\checkmark\text{M}}{\text{R}4\,353\checkmark\text{M}} \times 100\%$	1M numerator 1M denominator (2)	F L1
1.1.3	$\text{Cost per kg} = \frac{\text{R}147 \text{ X } 0{,}5\checkmark\text{M}}{6\checkmark\text{M}}\checkmark\text{M}$ $= \text{R}12{,}25\checkmark\text{A}$	1M dividing by 6 1A answer (2)	F L1
1.1.4	$\text{Cost of meat as a percentage} = \frac{\text{R}595}{\text{R}1\,503} \times 100\%\checkmark\text{M}$ $\approx 39{,}59\%\checkmark\text{A}$	1M method 1A answer (2)	F L1
1.1.5	$168 : 39 = 56 : 13$ ✓M ✓S	1M ratio correct order 1S simplifying (2)	F L1
1.2.1	Amount by which income or revenue is overspent✓✓A	2A correct definition (2)	F L1
1.2.2	Sixty billion six hundred and thirty seven million two hundr and eighty six thousand rands✓✓A	2A correct answer (2)	F L1
1.2.3	$\text{Adjusted appropriation} = \text{R}872\,057 + \text{R}50\,000$ ✓M ✓M	1M for R872 057 1M for adding R50 000 (2)	F L1
1.2.4	R146 152,803 million✓✓A	2A answer (2)	F L1
1.2.5	$\text{Surplus} = \text{R}146\,152\,803\,000 - \text{R}146\,040\,964\,000\checkmark\text{M}$ $= \text{R}111\,839\,000\checkmark\text{A}$	1M difference in values 1A correct answer (2)	F L1
		[20]	

Stanmorephysics.com

Copyright Reserved

QUESTION 2 [30 MARKS]			
2.1.1	difference = R24 608,32 − R21 338,64✓MA = R3 269,68✓A	1M subtraction 1A answer **AO** (2)	F L1
2.1.2	✓MA ✓MA Loan amount = R1 250 000 − R125 000 + R1 207,50 = R1 126 207,50✓A	1M subtracting deposit 1M adding initiation fee 1A answer (3)	F L2
2.1.3	✓MA ✓MA Real Cost of Loan = 72 × R21 338,64 + R62 500 = R1 598 882,08✓A	1M multiplying by 72 1M adding R62 500 1A answer (3)	F L2
2.1.4	Real Cost of Loan = 72 × R24 608,32 + R62 500✓M = R1 834 299,04✓A Interest = R1 834 299,04 − R1 126 207,50✓M = R708 091,54✓CA Claim is CORRECT✓O	1M multiplying by 72 1A simplifying 1M subtraction 1CA answer 1O opinion (5)	F L4
2.2.1	Interest rate = 0,089 ÷ 2✓M = 0,0445✓R	1M dividing by 2 1R rounding off (2)	F L2
2.2.2	First half of year: Interest = 4,45% × R96 597,18✓MA = R4 298,57✓A Amount = R96 597,18 + R4 298,57 = R100 895,75✓A Second half of year: Interest = 4,45% × R100 895,75 = R4 489,86✓CA Total Investment = R100 895,75 + R4 489,86 = R105 385,61✓CA **OR** ✓MA First half of year: Amount = 104,45% × R96 597,18 = R100 895,75✓A ✓MA ✓MA Second half of year: Amount = 104,45% × R100 895,75 = R105 385,61✓A	1MA multiplying by 4,45% 1A simplifying 1A amount 1CA simplifying 1CA total investment 1MA for 104,45% 1A simplifying 1MA for 104,45% 1MA multiplying 1A simplifying (5)	F L3

Stanmorephysics.com

Copyright Reserved

2.3.1	Amount ecluding VAT $= R409,17 \div 1,15$ ✓M $= R355,80$✓A **OR** Amount excluding VAT $= R409,17 \times \frac{100}{115}$ ✓M $= R355,80$✓A **OR** Amount excluding VAT $= R409,17 \div 115\%$✓M $= R355,80$✓A	1M dividing by 1,15 1A 1M for 100/115 1A answer 1M dividing by 115% 1A answer (2)	F L2
2.3.2	$18\ k\ell = 6\ k\ell + 12\ k\ell$✓M Charge $= 6(R0,00) + 12(R24,88)$✓M $= R298,56$✓A	1M splitting usage 1M multiplying by 12 1A answer (3)	F L3
2.3.3	Amount excluding VAT $= R492,52 \div 1,15$✓M $= R428,28$✓A Consumption in Block 1 $= R428,28 \div R24,88$✓M $= 17,21\ k\ell$✓A Total usage $= 6\ k\ell + 17,21\ k\ell$ $= 23,21\ k\ell$✓CA **OR** $R428,28 = 6 \times R0,00 +$ usage in Block 2 $\times R24,88$✓M Usage in Block 2 $= R428,28 \div R24,88$✓M $= 17,21\ k\ell$✓A Total usage $= 6\ k\ell + 17,21\ k\ell$✓M $= 23,21\ k\ell$✓CA	1M dividing by 1,15 1A simplifying 1M dividing by R24,88 1A simplifying 1CA answer 1M multiplying by R24,88 1M dividing by R24,88 1A simplifying 1M adding 1CA answer (5)	F L3
		[30]	

Stanmorephysics.com

Copyright Reserved

QUESTION 3 [25MARKS]			
Q	**Solution**	**Explanation**	**T &L**
3.1.1	Annual taxable income = R45 279 × 12 ✓MA = R543 348✓A	1MA multiplying by 12 1A correct value (2)	F L2
3.1.2	Tax bracket 4✓✓A	2A correct tax bracket (2)	F L2
3.1.3	✓SF ✓MA Annual tax =121 475 + 36% (543 348 – R512 800) – 26 679 = R105 793,28✓CA Monthly tax = R105 793,28 ÷ 12 ✓MCA = R8 816,11 ✓CA Table is INCORRECT✓O	**CA from 3.1.1** 1SF substitution 1MA subtract 2 rebates. 1CA answer 1MCA dividing by 12. 1CA answer 1O opinion (6)	F L4
3.2.1	Total = 640,3 + 471,5 + 336,1 + 137,9 + 90,4 + 111,3✓MA = 1 787, 5 billion OR 1 787 500 000 000✓A	1MA adding correct values 1A correct answer (2)	F L2
3.2.2	Percentage = $\frac{640,3}{1\,787,5}$ ✓MCA × 100 %✓M = 35,82 %✓CA	CA from Q3.2.1 1MCA dividing 640,3 by 1787,5 1M multiply by 100% 1CA answer (3)	F L2
3.2.3	Deficit✓A Expenses are more than the income✓✓O	1A subtracting correct values 2O correct explanation (3)	F L2
3.2.4	✓MA % increase = $\frac{2\,242,6-2\,168,8}{2\,168,8\checkmark MA} \times 100$ %✓M = 3,40%✓CA	1MA subtracting correct values 1MA dividing by 2168,8 1M multiply by 100% 1CA answer (4)	F L2
3.2.5	✓MA ✓MA A = 8 154,7 - (1 892,7 + 1 958,9 + 2 225,3) = 2077,8✓A	1MA subtracting 1MA correct values 1A correct answer (3)	F L2
			[25]

Stanmorephysics.com

Copyright Reserved

QUESTION 4 [25 MARKS]			
Q	**Solution**	**Explanation**	**T &L**
4.1.1	Theft of motor vehicle and Assault✓✓A	2A correct answer (2)	DH L2
4.1.2	✓RT Mean = (5.7 + 1 + 0.4 +0.4 + 0.3 + 0.1 + 0.1) ÷ 7✓M = 1,14%✓CA	1RT adding correct values 1M dividing by 7 1CA answer (3)	DH L2
4.1.3	✓ MA Total households = $\frac{100 \times 1\,100\,000}{5{,}7\checkmark M}$ =19 298 245.61 ✓CA = 19 300 000 ✓R	1MA multiplying by 100 1M dividing by 5,7 1CA answer 1R rounding (4)	DH L3
4.1.4	✓ RT Range = 1 078 000 – 11 000✓ M = 1 067 000✓ CA	1RT reading correct values 1M subtracting 1CA answer (3)	DH L2
4.1.5	✓RG Increase in theft = $\frac{73\,000}{19\,300\,000}$ ✓MCA × 21 100 000✓M = 79 808,29✓CA	**CA from Q4.1.3** 1RG correct value 1M dividing y 19 300 000 1M multiplying by 21 100 000 1CA answer (4)	P L3
4.2.1	Q2 = 9 trips✓✓RG	2RG correct answer (2)	DH L2
4.2.2	Driver 1 = IQR = 10 – 6 ✓SF = 4 ✓CA Driver 2 = IQR = 12 – 8 = 4 ✓CA Statement is CORRECT✓CA	1SF substitution correct values 1CA answer 1O opinion (4)	DH L3
4.2.3	Max for Driver 1 = 11 ✓RG Q_3 for Driver 2 = 12✓RG The statement is CORRECT. ✓O	1RG correct value 1RG correct value 1O opinion (3)	DH L3
			[25]
		TOTAL MARKS:	**100**

Stanmorephysics.com

Copyright Reserved