![KwaZulu-Natal Province Education coat of arms]

**KWAZULU-NATAL PROVINCE**

**EDUCATION**
REPUBLIC OF SOUTH AFRICA

# NATIONAL
# SENIOR CERTIFICATE

## GRADE 12

**MATHEMATICAL LITERACY**

**COMMON TEST**

**MARCH 2025**

**MEMO**

**MARKS: 100**

| SYMBOL | EXPLANATION |
|--------|-------------|
| MA | Method with accuracy |
| MCA | Method with Consistent accuracy |
| A | Accuracy |
| C | Conversion |
| S | Simplification |
| RT | Reading from a table/ graph/ diagram/Map/Document |
| SF | Correct substitution in a formula |
| O | Opinion/Explanation |
| AO | Answer only full marks |
| P | Penalty e.g. for units, incorrect rounding off etc. |
| NPR | No penalty for correct rounding |
| NPU | No penalty for omitting unit, but wrong unit is penalised |

This marking guideline consists of 7 pages.

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Please Turn Over

**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.
- Rounding is an independent mark.
- A conclusion mark can only be awarded if relevant calculations of at least $\frac{1}{3}$ of the maximum mark of the sub-question has been awarded.
- No penalty for rounding (NPR) if the first decimal is correct, except questions involving money.

## QUESTION 1 [20 MARKS] ANSWER ONLY FULL MARKS

| Q | Solution | Explanation | T &L |
|---|---|---|---|
| 1.1.1 | Government grants and subsidies✓✓RT | 2RT correct answer (2) | F L1 E |
| 1.1.2 | One million seven hundred and nineteen thousand rands.✓✓A | 2A correct value (2) | F L1 E |
| 1.1.3 | 37 395 000 : 5 175 000✓RT<br>831 : 115 ✓A | 1RT correct values & order<br>1A simplified Ratio (2) | F L1 E |
| 1.1.4 | $\quad\quad\quad$✓MA<br>A = 302 644 − (133 258 + 37 395 + 48 341 + 5 175 + 59 353)<br>$\quad$= 19 122✓A | 1MA subtracting correct values<br><br>1A correct answer (2) | F L1 E |
| 1.1.5 | Employees' salaries/Wages✓✓A<br>**OR**<br>Employees' Medical Aid/health Insurance✓✓A | 2A correct answer<br><br><br>(2) | F L1 E |
| 1.2.1 | Bar graph✓✓A | 2A correct answer (2) | DH L1 E |
| 1.2.2 | Discrete✓✓A | 2A correct answer (2) | DH L1 E |
| 1.2.3 | R23,38b; R21,25b; R9,87b; R8,60b; R5,80b; R5,75b✓✓A | 2A correct answer (2) | DH L1 E |
| 1.2.4 | 2021 - 2022✓A<br><br>R 8,60 b ✓A | 1A period<br><br>1A amount (2) | F L1 E |
| 1.2.5 | $\quad\quad\quad\quad$✓MA<br>Difference = R23,38 b − R5,75b<br>$\quad\quad$= R17,63 b✓A | 1MA subtracting correct values<br><br>1A correct answer (2) | F L1 E |
| | | | [20] |

March 2025 Test

## QUESTION 2 [30 MARKS]

| Q | Solution | Explanation | | T &L |
|---|---|---|---|---|
| 2.1.1 | The amount of money Joseph borrowed from FF Finance Institution✓✓O | 2O correct explanation | (2) | F L1 E |
| 2.1.2 | $\frac{18,5}{12}$ = 1,541666667%✓A<br><br>Interest = R50 000 × 1,541666667%✓MA<br>          = R770,83<br><br>**OR**<br><br>Interest = (50 000× 18,5% ) ÷ 12✓A✓MA<br><br>          = R770,83 | 1A correct interest rate<br><br>1MA multiplying correct values | (2) | F L1 M |
| 2.1.3 | ✓MA<br>B = R10 722,30 + R160,83 − R2 680,94✓MA<br>   = R8 202,19✓A | 1MA adding correct amounts<br>1MA subtracting payment<br>1A correct answer | (3) | F L2 M |
| 2.1.4 | As the balance decreases interest also decreases✓✓O | 2O Explanation | (2) | F L4 M |
| 2.1.5 | Real Cost of Loan = (22 × R2 680,94) + R418,97✓MA<br>             = R59 399,65✓A | 1MA multiplying correct values<br>1A correct answer | (2) | F L2 M |
| 2.1.6 | Total Interest = R59 399,65 − R50 000✓MCA<br>          = R9 399,65✓CA | **CA from 2.1.5**<br>1MCA subtracting correct amounts<br>1CA correct answer | (2) | F L2 M |
| 2.2.1 | Total Fixed Charge = R70,00 + R130,00✓MA<br>              = R200,00✓A | 1MA adding correct amounts<br>1A correct answer | (2) | F L2 E |

| 2.2.2 | Tariff Rate in Rands:  236,34 c = R2,3634 <br> 271,10 c = R2,7110  ✓C <br> 308,91c = R3,0891 <br><br> 640 kWh = 350 kWh + 150 kWh − 140 kWh <br> ✓MA      ✓MA      ✓MA <br> Charge = (350 × R2,3634) + (150 ×R2,7110) + (140 ×R3,0891) <br> = R1 666,31✓A <br><br> Amount including VAT = R1 666,31 × 115%✓MCA <br> = R1 916,26✓CA <br><br> Total Paid    = R200,00 + R1 916,26✓MCA <br> = R2 116,26✓CA | 1 C conversion <br><br><br><br> 3MA multiplying correct kWh and tariff rate <br> 1A correct amount <br><br> 1MCA multiplying by 115% <br> 1CA correct amount <br><br> 1MCA adding correct values <br><br> 1CA correct amount        (9) | F <br> L3 <br> M |
| 2.2.3 | Amount including VAT: 115% × R756,29 = R869,73✓A <br><br> Total Paid = R200,00 + R869,73✓MCA <br><br> = R1 069,73✓CA <br><br> Half of R2 116,26 = R2 116,26 ÷ 2 ✓MA <br><br> = R1 058,13✓A <br><br> R1058,13 < R1069,73 <br><br> The employee's claim is INCORRECT✓O <br><br> **OR** <br> Amount including VAT: 115% × R756,29 = R869,73✓A <br><br> Total Paid = R200,00 + R869,73✓MCA <br> = R1 069,73✓CA <br><br> Half of R2 116,26 = R2 116,26 × 0,5✓MA <br> = R1 058,13✓A <br><br> R1058,13 < R1069,73 <br><br> The employee's claim is INCORRECT✓O | 1A correct answer <br><br> 1MCA adding R200 <br><br> 1CA correct total paid <br><br> 1MA dividing by 2 <br><br> 1A correct answer <br><br><br> 1O opinion <br><br> **OR** <br> 1A correct answer <br><br> 1MCA adding R200 <br> 1CA correct total paid <br><br> 1MA multiplying by 0,5 <br> 1A correct answer <br><br><br> 1O opinion        (6) | F <br> L4 <br> M |
| | | | [30] |

## QUESTION 3 [26 MARKS]

| Q | Solution | Explanation | T &L |
|---|---|---|---|
| 3.1.1 | Analyzing data✓✓A | 2A correct answer<br>**Accept: Representing Data**<br>(2) | DH<br>L2<br>E |
| 3.1.2 | $\%\ pass = \dfrac{\overset{\checkmark RT}{84\ 760}}{99\ 739}\ \checkmark RT\ \times 100\ \%\checkmark MA$<br><br>$\therefore 84,98\%\checkmark A$ | 1RT Correct Numerator<br>1RT Correct Denominator<br>1MA multiplying by 100<br>1A answer (4) | DH<br>L2<br>M |
| 3.1.3 | 10 892; 33 039; 35 513; 54 414; 54 567; 79 461; 84 760; 117 793; 144 990 ✓ A<br><br>Median =54 567✓A<br><br>Province = Mpumalanga✓A | 1A arranging data<br><br>1A Median<br><br>1A Correct Province (3) | DH<br>L2<br>E |
| 3.1.4 | No of learners that Failed = 705 291 – 615 429✓ MA<br>=89 862✓ A<br><br>Mean = 89 862 ÷ 9✓MCA<br>= 9 984,67✓CA<br><br>Claim is INCORRECT✓O | 1MA subtracting<br>1A correct answer<br><br>1MCA dividing<br>1CA answer<br><br>1O opinion (5) | DH<br>L4<br>M |
| 3.2.1 | 25% of the learners in Class A achieved a mark of 84% or less✓✓O<br><br>**OR**<br><br>75% of the learners in Class A achieved a mark of more than 84%. ✓✓O | 2O correct explanation<br><br>(2) | DH<br>L2<br>M |
| 3.2.2 | $\overset{\checkmark RT}{IQR = 84 - 76}\ \checkmark SF$<br>$= 8\ \checkmark A$ | 1RT correct values<br>1SF correct substitution<br>1A answer (3) | DH<br>L3<br>M |
| 3.2.3 | Data needs to be arranged in ascending / descending order ✓✓A<br><br>**OR**<br><br>IQR only represents the middle 50% of the data.✓✓A | 2A correct answer<br><br>(2) | DH<br>L1<br>E |

| 3.2.4 | | | | | | DH L3 M |
|---|---|---|---|---|---|---|
| | | Class A | Class B | | | |
| | MIN | 76 | 68 | ✓RT | | |
| | Q1 | 84 | 76 | ✓RT | 4 RT   correct values | |
| | Q2 | 88 | 80 | ✓RT | | |
| | Q3 | 92 | 84 | ✓RT | | |
| | MAX | 100 | 100 | | | |

The minimum, Q1, Q2 and Q3 values are higher in Class A

Class A ✓A

1A Correct Class

(5)

[26]

| QUESTION 4 [24MARKS] | | | |
|---|---|---|---|
| **Q** | **Solution** | **Explanation** | **T &L** |
| 4.1.1 | The tax threshold is the amount of income you can earn before you are required to pay tax.✓✓O<br><br>**OR**<br><br>The income level at which a person begins paying taxes.✓✓O | 2O correct explanation<br><br>(2) | F L1 M |
| 4.1.2 | Annual taxable income = R7 979 × 12 ✓MA<br>                      = R95 748✓A | 1MA   multiplying by 12<br>1A     correct value<br>(2) | F L2 E |
| 4.1.3 | Tax bracket 1✓✓A<br>**OR**<br>1 - 237 100 ✓✓A | 2A      correct tax bracket<br>(2) | F L2 E |
| 4.1.4 | ✓SF<br>Annual tax =18% × R 95 748<br>          = R17 234,64✓A<br><br>Rebate = R17 234,64  -  R17 235 ✓MCA<br><br>       = - R0,36✓CA<br><br>Claim is CORRECT✓O | **CA from 4.1.2**<br><br>1SF     substitution<br><br>1A correct answer<br><br>1MCA subtract 1 rebate.<br><br>1CA answer<br><br>1O   opinion        (5) | F L4 M |

| 4.2.1 | Convert to million =393,8 billion × 1 000✓MA<br>= 393 800 million✓A | 1MA multiplying by 1000<br><br>1A correct answer<br><br>**Accept: 393 800 000 000**<br>(2) | F<br>L2<br>E |
|---|---|---|---|
| 4.2.2 | Difference = 16,2% - 14,9%✓MA<br>= 1,3%✓A | 1MA subtracting correct values<br>1A correct answer (2) | F<br>L2<br>E |
| 4.2.3 | Expenditure exceeds the Income ✓O<br><br>Deficit✓A | 1O correct explanation<br><br>1A correct answer (2) | F<br>L4<br>E |
| 4.2.4 | Conversion = 174 700 000 000 ÷ 0,238519✓MA<br><br>= R732 436 409 678,06✓A | 1MA diving by 0,238519<br>1A correct answer<br>Accept: R732 436 409 700<br>(2) | F<br>L2<br>M |
| 4.3.1 | Inflation rate fluctuated from January 2011 to December 2023.✓✓O<br><br>**OR**<br><br>The inflation rate increases and decreases over the period.✓✓O | 2O explanation<br><br><br>(2) | F<br>L2<br>M |
| 4.3.2 |                                ✓RT    ✓MA<br>Price of Bread in March 2020 = RM 2,93 - (3% × R 2,93)<br><br>=RM 2,84✓A | 1RT correct inflation rate<br><br>1MA subtracting<br><br>1A correct answer (3) | F<br>L2<br>M |
| | | | **[24]** |
| | | **TOTAL** | **100** |