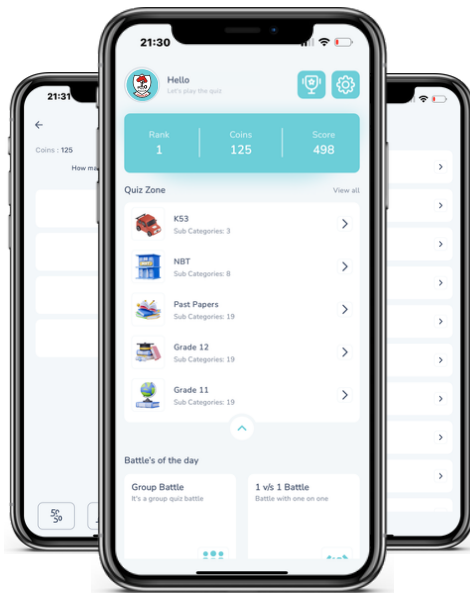




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**GRADE 11**

**NOVEMBER 2017**

**MATHEMATICAL LITERACY P1  
MARKING GUIDELINE**

**MARKS: 100**

| <b>Symbol</b> | <b>Explanation</b>                                      |
|---------------|---|
| M             | Method  |
| M/A           | Method with Accuracy                                    |
| A             | Accuracy  |
| CA            | Consistent accuracy                                     |
| RT/RG/RM      | Reading from a table/Reading from a graph/Read from map |
| SF            | Substitution in a formula                               |
| P             | Penalty, e.g. for no units, incorrect rounding off etc. |
| NP            | No Penalty  |
| S             | Simplification  |
| R             | Rounding/Reason   |

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This marking guideline consists of 7 pages.

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| QUESTION 1 |  |   |             |
|------------|--|---|-------------|
| Quest.     | Solution<br>AWARD FULL MARKS FOR ANSWER ONLY                       | Explanation                                     | Marks       |
| 1.1.1      | January 2017 ✓✓  | 2RT Correct month                               | L1<br>(2)   |
| 1.1.2      | R258,20 + R4 956,38 + R2 582 + R1 956,20 ✓<br>= R9 753,08 ✓        | 1M Count correct values<br>1CA Total deductions | L1<br>(2)   |
| 1.1.3      | Unemployment Insurance Fund ✓✓                                     | 2A Write in full                                | L1<br>(2)   |
| 1.1.4      | $\frac{3}{5} \times 1\,290$ ✓<br>= R774,00 ✓                       | 1M Correct ratio<br>1 CA Amount                 | L1<br>(2)   |
| 1.2        | Perimeter<br>4 cm x 2 + 2 cm + 3 cm + 6 cm + 7 cm ✓<br>= 26 cm ✓   | 1M/A correct values<br>1A Perimeter             | L1<br>(2)   |
| 1.3.1      | North East ✓✓  | 2A Direction                                    | L1<br>(2)   |
| 1.3.2      | 1 cm on the map represents 250 000 cm on the ground/in reality. ✓✓ | 2A Explanation                                  | L1<br>(2)   |
| 1.4.1      | 17, 19, 21, 23, 25, 26, 26, 27, 28, 29 ✓✓                          | 2A Arrangement                                  | L1<br>(12)  |
| 1.4.2      | 7 ✓✓   | 2A Minimum temperature                          | L1<br>(2)   |
| 1.4.3      | Number appearing most frequently. ✓✓                               | 2A explanation                                  | L1<br>(2)   |
|            |  |   | <b>[20]</b> |

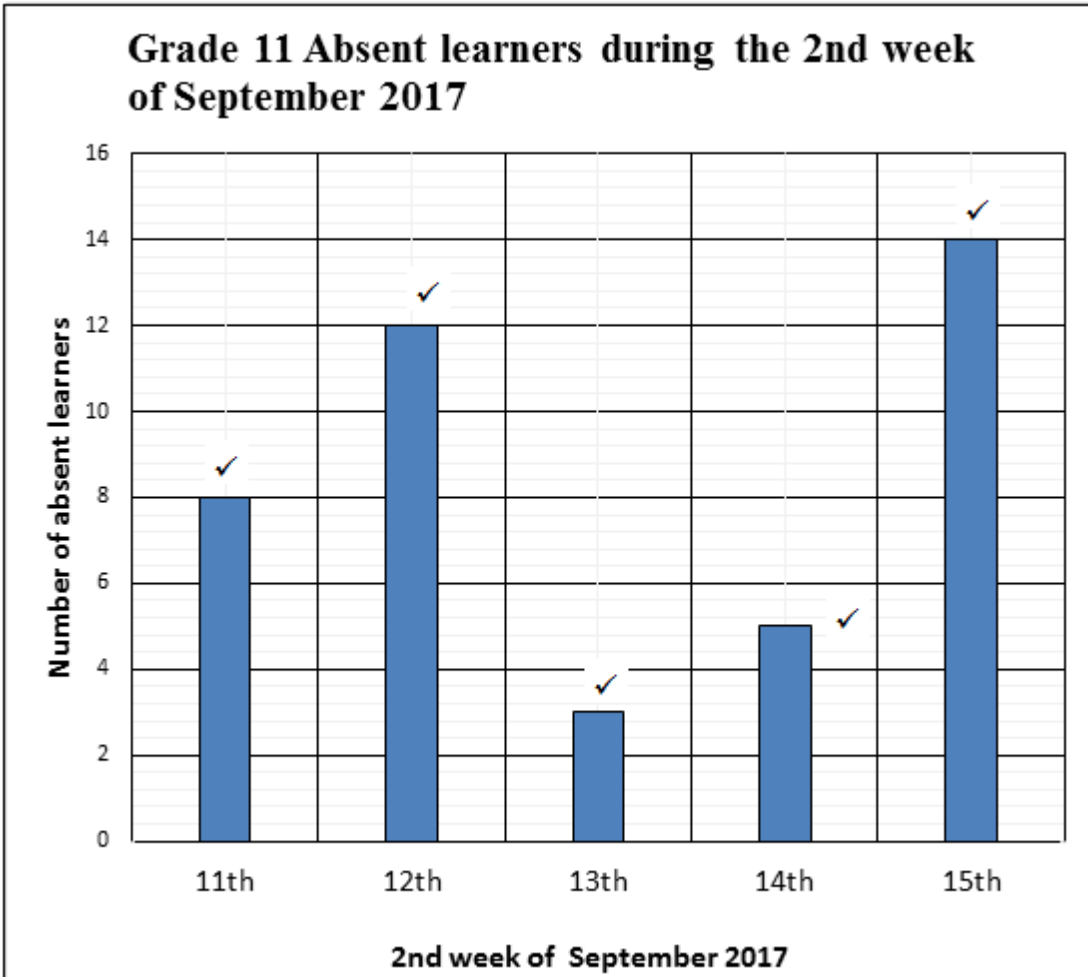
| QUESTION 2 |  |   |                                   |
|------------|--|---|-----------------------------------|
| Quest.     | Solution   | Explanation   | Marks                             |
| 2.1.1      | R1 450,00 ✓✓   | 2RT amount  | L1<br>(2)                         |
| 2.1.2      | $\frac{1\,450}{1\,495} \times 100$ ✓<br>$= 96,98$ ✓<br>$= 97,0\%$ ✓  | 1M Correct values<br>1M (x100)  | L1<br><br>(4)                     |
| 2.1.3      | Total amount to be paid per day.<br>$R1\,400 \times 3 = R4\,200,00$ ✓<br>$R1\,035 \times 2 = R2\,070,00$ ✓<br>$R1\,495 \times 1 = R1\,495,00$ ✓<br>Total = R7 765,00 ✓   | 1A 6 sleeper<br>1A 4 sleeper<br>1A 8 sleeper<br>1A Total  | L1<br><br>(4)                     |
| 2.1.4      | Total cost for 4 days = $R7\,765 \times 4$ ✓<br>$= R31\,060,00$ ✓<br><br>$31\,060 \times 14\%$<br>$= R4\,348,40$ ✓<br>$R31\,060 + R4\,348,40$ ✓<br>$= R35\,408,40$ ✓<br><br><b>OR</b><br><br>$R7\,765 \times 4$ ✓<br>$= R31\,060$ ✓<br>$R31\,060 \times 114\%$ ✓<br>$R35\,408,40$ ✓✓ | <b>CA from 2.1.2</b><br>1M multiplying by 4<br>1M R7 765<br>1CA Cost without VAT<br><br>1M x 14%<br>1CA | L3<br><br><br><br><br><br><br>(5) |
| 2.2.1      | Deposit = $12,5\% \times R31\,060$ ✓<br>$= R3\,882,50$ ✓   | <b>CA from 2.1.2 2M</b><br>Multiplying by 12,5%<br>and 31 060<br>1CA                                    | L1<br><br>(3)                     |
| 2.2.2      | Balance = $R35\,408 - R3\,882,50$ ✓<br>$= R31\,525,90$ ✓<br><br><b>OR</b><br>VAT on Deposit = $3\,882,50 \times 0,14$<br>$= R543,55$<br>Balance including VAT<br>$R27\,177,50 \times 1,14$<br>$= R30\,982,35 + 543,55$<br>$= R31\,525,90$  | <b>CA from 2.1.2 and 2.2.1</b><br>1M Subtraction<br>1CA Balance   | L1<br><br><br><br><br><br><br>(2) |

| Quest. | Solution  | Explanation  | Marks             |
|--------|---|--|-------------------|
| 2.2.3  | Thirty one thousand five hundred twenty five rands and ninety cents ✓✓  |  | (2)               |
| 2.2.4  | $\text{Donation} = 20 \times \text{R}14,2058 \checkmark$<br>$= \text{R}284,116 \checkmark$<br>$= \text{R}284,12 \checkmark$ | 2M Multiplying<br>1S<br>1A Donation<br><b>(Accept R284,10)</b> | L3<br><br><br>(3) |
| 2.3.   | $\text{Cost of parking} = 4 \times \text{R}12,00 \checkmark$<br>$= \text{R}48,00 \checkmark$                                | 1M/A<br>(Multiply 4 days by 12)<br>1CA<br>Parking fees         | L1<br><br><br>(2) |
|        |   |  | <b>[27]</b>       |



| QUESTION 3 |  |   |                   |
|------------|--|---|-------------------|
| Quest.     | Solution   | Explanation   | Marks             |
| 3.1.1      | Minimum daily food = $250\text{g} + 500\text{ g}$ ✓<br>cups $= \frac{750\text{ g}}{125\text{ g}}$<br>$= 6\text{ cups}$ ✓   | 1M Addition<br>1M Division<br><br>1CA Cups                                | L1<br><br>(3)     |
| 3.1.2      | Number of days $= \frac{10\,000\text{ g}}{750\text{ g}}$ ✓✓<br>$= 13,3$ ✓<br>$= 13\text{ days}$ ✓  | 1SF,<br>1 C ( kg to g)<br>1S Division<br>1CA Days -                       | L2<br><br>(4)     |
| 3.1.3      | Tommy's weight $= \frac{42}{1\,000}$ ✓<br>$= 0,042\text{ tons}$ ✓  | 1C<br>1A Ton  | L1<br><br>(2)     |
| 3.2.1      | $\frac{43}{100}$ ✓ $= 0,43$ ✓  | 1MA<br>1A   | L1<br><br>(2)     |
| 3.2.2      | Area of a main bedroom $= 3\text{ m} \times 3,5\text{ m}$ ✓<br>$= 10,5\text{ m}^2$ ✓   | 1M<br><br>1CA Area  | L2<br><br>(2)     |
| 3.2.3      | Number of boxes of tiles $= \frac{10,5\text{ m}^2}{(0,43 \times 0,43)\text{ m}^2 \times 13}$ ✓✓<br>$= \frac{10,5\text{ m}^2}{0,1849\text{ m}^2 \times 13}$ ✓<br>$= \frac{56,79}{13}$<br>$= 4,37$ ✓<br>$= 5\text{ boxes}$ ✓ | 1SF and 1C<br><br><br>1S<br>1CA<br><br>1CA<br>(rounding upward for boxes) | L2<br><br><br>(5) |
|            |  |   | [18]              |

| QUESTION 5 |   |   |           |
|------------|---|---|-----------|
| Quest.     | Solution<br>ANSWER ONLY (FULL MARKS)  | Explanation   | Marks     |
| 5.1.1      | 445 million cubic metres ✓<br>Heyshope dam ✓  | 1A Maximum<br>1A units                                | L2<br>(2) |
| 5.1.2      | Difference = $445 - 180,9$ ✓✓<br>= 246,1 ✓  | 1A Correct values<br>1M subtraction<br>1CA Difference | L1<br>(3) |
| 5.1.3      | $\frac{57,9+36,3+71,5+20,8+57+18,9+13,5+18,1+180,9}{9}$ ✓<br>Mean = $\frac{474,9}{9}$ ✓<br>= 52,77 million cubic metres ✓ | 1M division by 9<br>1S<br>1CA                         | L2<br>(3) |
| 5.1.4      | (i) Klipfontein ✓<br>(ii) Ohrigstad ✓<br>(iii) Glen Alpine ✓  | 2 RT<br>any two dams<br>identified                    | L1<br>(2) |
| 5.1.5      | Range = $445 - 10$ ✓<br>= 435 ✓   | 1M<br>1CA (using<br>values from a<br>wrong column )   | L2<br>(2) |

| Quest.   | Solution   | Explanation  | Marks      |
|--|--|--|------------|
| 5.2.1  | Absentees Week1 = 47<br>Absentees Week 2 = 42<br>Therefore Week 1 had most absentees ✓✓  | M/A<br>A   | (2)        |
| 5.2.2  |  |  |            |
| <p style="text-align: center;"><b>Grade 11 Absent learners during the 2nd week of September 2017</b></p>  <p style="text-align: center;"><b>2nd week of September 2017</b></p> <p>Each bar correctly plotted -allocate 1 mark [5x 1= 5]      L2</p> |  |  |            |
| 5.3.1  | $P(\text{Green ball}) = \frac{5}{18}$ ✓✓<br>(Allow answer in % or decimal and no penalty for rounding) Accept 0,278 <b>OR</b> 27,8%. | 1M numerator<br>1M denominator   | L2<br>(2)  |
| 5.3.2  | $P(\text{Blue ball}) = \frac{10}{18} \times 100$ ✓<br><br>$= 55,56\%$ ✓  | 1M numerator<br><br>1M multiplication by 100<br>1CA Percentage to 2 decimal places | L2<br>(3)  |
|  |  |  | [24]       |
|  |  |  |            |
|  |  | <b>TOTAL:</b>  | <b>100</b> |