Province of the
EASTERN CAPE
EDUCATION

# O.R TAMBO
# INLAND DISTRICT

## GRADE 10

## MATHEMATICAL LITERACY
## PAPER 2
## MEMORANDUM

**JUNE 2022**

**MARKS: 50**

| Codes | Explanation |
|---|---|
| M | Method |
| MA | Method with Accuracy |
| CA | Consistent Accuracy |
| A | Accuracy |
| C | Conversion |
| D | Define |
| J | Justification / Reason / Explain |
| S | Simplification |
| RT / RD / RG | Reading from a table OR a graph OR a diagram OR a map OR a plan |
| F | Choosing the correct formula |
| SF | Substitution in a formula |
| O | Opinion |
| P | Penalty, for no units, incorrect rounding-off, etc. |
| R | Rounding-off |
| NP | No penalty for rounding-off OR omitting units |

Stanmorephysics.com

**This Memorandum consists of 4 pages including the cover page and grid analysis.**

## QUESTION 1

| QNS | SOLUTION | EXPLANATION | MARKS | TL |
|---|---|---|---|---|
| 1.1.1 | 12 × 28,35 ✓M<br>= 340,2g ✓CA | 1M times 28,35<br>1CA answer in gram | (2) | TL1 |
| 1.1.2 | 12:15 + 25 minutes ✓M<br>= 12:40 ✓CA | 1M plus 25minutes<br>1CA correct time | (2) | TL1 |
| 1.1.3 | 0,6 × 1 000✓C<br>= 600 ml ✓A | 1C multiply by 1000<br>1A answer in millilitre | (2) | TL2 |
| 1.1.4 | Metric unit ✓✓O | 2O correct unit | (2) | TL3 |
| 1.1.5 | SP =R15+R10 = R25 ✓MA<br>$= \frac{300}{25}$✓ $= 12\ pies$ ✓A | 1MA addition<br>1M division<br>1A | (3) | TL2 |
| 1.2.1 | thermometer ✓✓A | 2 A correct answer | (2) | |
| 1.2.2 | temperature ✓✓A | 2 A correct answer | (2) | |
| 1.2.3 | 21℃ ✓✓A accept [20,5 – 21,5] | 2 A correct answer | (2) | |
| 1.2.4 | $°F = \frac{9}{5} \times 21℃ + 32$✓<br>$°F = 69{,}8℃$. ✓S✓A<br>accept [69 – 71] | 1 SF substitution<br>1 S simplification<br>1 A answer | (3) | |
| 1.3.1 | West stand ✓✓A | 2A | (2) | |
| 1.3.2 | VIP, musicians, security✓✓A | 2A any correct | (2) | |
| 1.3.3 | B3 /B2/B4✓✓A | 2 A correct answer | (2) | |
| | | | **[22]** | |

## QUESTION 2

| QNS | SOLUTION | EXPLANATION | MARKS | TL |
|---|---|---|---|---|
| 2.1 | Square✓✓A | 2A answer | (2) | |
| 2.2 | 3 000 ÷ 1 000 ✓C<br>= 3 m✓A | 1C conversion<br>1A answer in m | (2) | |
| | | | **[4]** | |

## QUESTION 3

| QNS | SOLUTION | EXPLANATION | MARKS | TL |
|---|---|---|---|---|
| 3.1 | $\frac{0}{2}$✓A✓A | 1A numerator<br>1A Denominator | (2) | |
| 3.2 | N12✓A<br>N2 ✓A | 1A for N12<br>1A for N2 | (2) | |
| 3.3 | 60 + 70 = 130km✓A✓A<br>Knysna ✓A | 2 M addition<br>1 A answer | (3) | |
| 3.4 | 60 + 70 + 35 = 165 Km ✓<br>92 mm : 165 km ✓<br>92 : 165 × 1 000 000 ✓C<br>92 : 165 000 000<br>92÷ (92) : 165 000 000 ÷ (92) ✓MA<br>1 : 1 793 478,26 ✓CA<br>1 : 1 800 000 ✓R | 1 RT correct values<br>1RT ratio<br>1C conversion to mm<br><br>1 MA share with 92<br>1CA answer<br>1R rounding | (6) | |

| | | | | |
|---|---|---|---|---|
| 3.5 | Time = Distance ÷ Speed ✓F<br>Distance = 70 + 35<br>= 105 km ✓A<br>Time = 105km ÷ 100km/h ✓SF<br>= 1,05h<br>Time = 1 hour (0,05 × 60) ✓MA<br>= 1 hour 3 minutes<br>Arrival time = 13:38 + 1 hour 3 minutes✓MA<br>= 14:41 ✓CA<br>He is correct ✓O | 1F correct formula<br>1A correct distance<br>1SF replaced in formula<br>1MA times 60<br>1MA adds time<br>1CA correct arrival time<br>1O explanation | (7) | |

| TAXONOMY LEVELS | | | | | |
|---|---|---|---|---|---|
| GRADE 10 | | | | | |
| MATHEMATICAL LITERACY | | | | | |
| PAPER 2 TERM 2 – 2022 | | | | | |
| MARKS: 50 | | | | | |
| **QUESTION** | **KNOWLEDGE** | **ROUTINE PROCEDURES** | **COMPLEX PROCEDURES** | **PROBLEM SOLVING** | **TOTAL** |
| **DESIRED %** | **30%** | **30%** | **20%** | **20%** | **100%** |
| 1.1.1 | 2 | | | | 2 |
| 1.1.2 | | 2 | | | 2 |
| 1.1.3 | | 2 | | | 2 |
| 1.1.4 | 2 | | | | 2 |
| 1.1.5 | | | | 3 | 3 |
| 1.2.1 | 2 | | | | 2 |
| 1.2.2 | 2 | | | | 2 |
| 1.2.3 | 2 | | | | 2 |
| 1.2.4 | | 3 | | | 3 |
| 1.3.1 | 2 | | | | 2 |
| 1.3.2 | | 2 | | | 2 |
| 1.3.3 | | | 2 | | 2 |
| 2.1 | 2 | | | | 2 |
| 2.2 | | | 2 | | 2 |
| 3.1 | 2 | | | | 2 |
| 3.2 | | 2 | | | 2 |
| 3.3 | | 3 | | | 3 |
| 3.4 | | | 6 | | 6 |
| 3.5 | | | | 7 | 7 |
| **Total** | **16** | **14** | **10** | **10** | **50** |
| **Actual %** | **32,0** | **28,0** | **20,0** | **20,0** | **100,0** |
| **Desired %** | **30%** | **30%** | **20%** | **20%** | **100** |