Province of the
EASTERN CAPE
EDUCATION

Iphondo leMpuma Kapa: Isebe leMfundo
Provinsie van die Oos Kaap: Department van Onderwys
Provense ya Kapa Botjhabela: Lefapha la Thuto

O.R TAMBO
INLAND DISTRICT

GRADE 10

MATHEMATICAL LITERACY

CONTROLLED TEST

18 MARCH 2025

MARKS: 50

DURATION: 1 HOUR

This paper consists of 4 pages when including the cover page.

INSTRUCTIONS AND INFORMATION

Read the following instructions carefully before answering the questions.

1. This question paper consists of THREE questions. Answer ALL the questions.
2. Clearly show ALL calculations, diagrams, graphs, et cetera that you have used in determining your answers.
3. Answers only will not necessarily be awarded full marks.
4. You may use an approved scientific calculator (non-programmable and non-graphical), unless stated otherwise.
5. If necessary, round off answers to TWO decimal places, unless stated otherwise.
6. Diagrams are NOT necessarily drawn to scale.
7. Number the answers correctly according to the numbering system used in this question paper.
8. Write neatly and legibly.

QUESTION 1

1.1 Write the following number in words.

4 560 008 (2)

1.2 Determine the values of the following.

1.2.1 $3^3 + \sqrt{180 - 36}$ (3)

1.2.2 $3[40 + (-4)^2] - 306 \div 6$ (3)

1.3 Write the following in numbers.

1.3.1 Five thousand four hundred and twenty – three. (2)

1.3.2 Two hundred and fifty million six hundred thousand and forty. (2)

1.4 Round off the following numbers

1.4.1 56 456 (to the nearest 100) (2)

1.4.2 0,035 895 (to the nearest 3 decimal places) (2)

[16]

QUESTION 2

Peter (8 years) and Julia (12 years) received R5 000 from their rich aunt from Australia. They agreed to share the amount in the ratio of their ages.

2.1 Write their ages as a ratio in simplified form. (2)

2.2 Calculate how much more money will Julia receive than Peter. (5)

2.3 The rich aunt decided to send R6 000 the following month. Calculate the percentage increase of the money received. (4)

2.4 Julia stated that she is a dozen years old now. Determine how old will Julia be after 2 years? (3)

[14]

QUESTION 3

On a particular day, a traffic officer recorded the following speeds in km/h of cars passing along R61.

66; 82; 64; 61; 78; 81; 81; 90; 109; 56; 73

3.1 Determine how many cars were recorded by the traffic officer (2)

3.2 Is speed a ratio or a rate? (2)

3.3 Is the data categorical or numerical? (2)

3.4 Determine the mode of the data. (2)

3.5 Determine the median of the data. (2)

3.6 If the average speed along R61 is 80km/h. Determine how many drivers are not observing road rules. (2)

3.7 The officer claimed the range of the speed recorded is 55 km/h. Verify whether the claim is valid (4)

3.8 Calculate the mean speed of the cars recorded. Round off your answer to the nearest whole number (4)

[20]

Total Marks : [50]

Province of the
EASTERN CAPE
EDUCATION

Iphondo leMpuma Kapa: Isebe leMfundo
Provinsie van die Oos Kaap: Department van Onderwys
Provense ya Kapa Botjhabela: Lefapha la Thuto

O.R TAMBO INLAND DISTRICT

GRADE 10

MARCH 2025

MATHEMATICAL LITERACY MARKING GUIDELINE

MARKS: **50**

Symbol	Explanation
M	Method
MA	Method with Accuracy
CA	Consistent Accuracy
A	Accuracy
C	Conversion
D	Define
J	Justification/Reason/Explain
S	Simplification
RD	Read from the table OR a graph
F	Choosing the correct formula
SF	Substitution in formula
O	Opinion
P	Penalty, e.g for no units, incorrect rounding
R	Rounding off
AO	Answer only
NPR	No penalty for rounding off OR omitting units

This marking guideline consists of 4 pages including Analysis grid.

QUESTION 1 [4] FINANCE AND DATA HANDLING			
QUES.	**SOLUTION**	**EXPLANATION**	**LEVEL**
1.1	4 560 008 Four million five hundred and sixty thousand and eight. ✓✓A	**2 A answer**	**L1**
1.2.1	$3^3 + \sqrt{180 - 36}$ $= 27 + \sqrt{144}$✓S $= 27 + 12$✓M $= 39$ ✓A	1 S simplification 1 M addition 1 A answer	**L2**
1.2.2	$3[40 + (-4)^2] - 306 \div 6$ $= 3(40 + 16) - 51$✓S $= 3(56) - 51$✓M $= 168 - 51$ $= 117$A ✓A	1 S simplification 1 M subtraction 1 A answer	**L2**
1.3.1	5 423✓✓A	2 A answer	**L1**
1.3.2	250 600 040✓✓A	2 A answer	**L1**
1.4.1	56 500✓✓A	2 A answer	**L1**
1.4.2	0,036✓✓A	2 A answer	**L1**
QUESTION 2 [10] FINANCE			
2.1	8 : 12✓RT $\frac{8}{4}$; $\frac{12}{4}$ 2 : 3 ✓ A	1 RT correct values 1 A answer	**L2**
2.2	$2 + 3 = 5$✓M Julia: $\frac{3}{5} \times$ R5 000✓S = R3 000✓A Peter : $\frac{2}{5} \times$ R5 000 = R2 000✓A Difference: R3 000 − R2 000 = R1 000✓A	1 M addition 1 S simplification 3 A answers	**L4**
2.3	$\frac{R6\,000 - R5\,000}{R5\,000\text{✓RT}}$✓S × 100✓M = 20%✓A	1 S simplification 1 RT correct value 1 M multiplication 1 A answer	**L3**
2.4	12✓RT + 2✓M = 14✓A	1 RT 12 1 M addition 1 A answer	**L2**
QUESTION 3 [19] FINANCE			
3.1	11 cars ✓✓A	2 A answer	**L1**
3.2	*a rate* ✓✓A	2 A answer	**L1**

3.3	*numerical* ✓✓A	2 A answer	**L1**
3.4	81✓✓	2 A answer	**L2**
3.5	56 61 64 66 73 78 81 81 82 90 109✓M Median = 78✓A	1 M arranging in ascending order 1 A answer	**L2**
3.6	5 drivers ✓✓A	2 A answer	**L4**
3.7	Range = $Max - Min$ = 109 − 56✓RT✓M = 53✓A ∴ *Not valid claim.* ✓O	1 RT correct values 1 M subtraction 1 A answer 1 O opinion	**L3**
3.8	Mean = $\frac{56+61+64+66+73+78+81+81+82+90+109}{11}$✓M = $\frac{841}{11}$✓M = 76,45✓CA ≈ 76✓R	1 M addition 1 M division by 11 1 CA answer 1 R rounding off	**L2**
	TOTAL = 50 MARKS		

ORTID MATHEMATICAL LITERACY G10 CONTROLLED TEST TERM 1 ANALYSIS GRID					
QUESTION	**LEVELS**				**TOTAL**
	1	**2**	**3**	**4**	
1.1	2				2
1.2.1		2			2
1.2.2		2			2
1.3.1	2				2
1.3.2	2				2
1.4.1	2				2
1.4.2	2				2
2.1		2			2
2.2				5	5
2.3			4		4
2.4		3			3
3.1	2				2
3.2	2				2
3.3	2				2
3.4	2				2
3.5		2			2
3.6				2	2
3.7			4		4
3.8		4			4
Marks	20	15	8	7	50
Actual %	40%	30%	16%	14%	100
Expected %	**30%**	**30%**	**20%**	**20%**	**100**