GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

PREPARATORY EXAMINATION

2025

MARKING GUIDELINES

MATHEMATICAL LITERACY (PAPER 1) (10601)

10 pages

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/RS	Reading from a table/ graph/diagram/map/plan/source
F	Choosing the correct formula
SF	Correct substitution in a formula
O	Opinion
P	Penalty, e.g. for no units, incorrect rounding-off, etc.
R	Rounding-off
NP	No penalty for omitting units
NPR	No penalty for rounding-off

KEY TO TOPIC SYMBOLS:

F = Finance; DH = Data Handling ; P = Probability

QUESTION 1			ANSWER ONLY FULL MARKS (30 marks)		
Q	**Answer**		**Explanation**	**Topic Level**	**Mark**
1.1	1.1.1	D ✓✓A	2 A correct answer **Accept exchange rate**	F1	2
	1.1.2	F ✓✓A	2 A correct answer **Accept tariff**	F1	2
	1.1.3	E ✓✓A	2 A correct answer **Accept Value Added Tax**	F1	2
	1.1.4	G ✓✓A	2 A correct answer **Accept credit**	F1	2
	1.1.5	B ✓✓ A	2 A correct answer **Accept inflation**	F1	2
1.2	1.2.1	Western Cape ✓✓ RT	2 RT correct Province	DH1	2
	1.2.2	Thirteen million and twenty-three thousand eight hundred and thirty three. ✓✓ A	2 A correct answer	DH1	2
	1.2.3	13 195 793 − (5 070 287 + 1 773 639 + 2 155 489 + 647 154 + 933 276 + 667 632 + 792 815 + 295 238) ✓MA = 860 263 ✓A	1 MA subtracting all correct values 1A correct answer	DH1	2
	1.2.4	$\frac{647\,154}{13\,195\,793}$ ✓RT × 100 ✓MA = 4.904 % ✓A	1 RT correct values 1MA percentage 1 A correct answer **NPR**	DH1	3
	1.2.5	667 632 − 295 238 ✓RT ✓MA = 372 394 ✓A	1 RT correct values 1 MA subtracting correct values 1A correct answer **Accept -372 394**	DH1	3
	1.2.6	Gauteng Province ✓✓RT	2 RT correct answer **Accept GP**	DH1	2

1.3	1.3.1	Property rates ✓✓ RT	2 RT correct answer	F1	2
	1.3.2	C = R24,21 + R14,27 ✓MA = R38,48 ✓A **OR** C = 600,03 – 561,55✓MA = 38,48✓MA **OR** C = 561,55 – 305 = 256,55 × 15% ✓MA = R38,48✓MA	1MA adding/ subtracting the correct values 1A correct answer **NPR**	F1	2
	1.3.3	R219,70 + R561,55 ✓RT ✓MA = R781,25 **OR** R819,73 – R38,48✓RT ✓MA = R781,25	1RT both values 1MA adding/subtracting correct values	F1	2
					[30]

QUESTION 2 **(29 marks)**

Q	Answer		Explanation	Topic Level	Mark
2.1	2.1.1	R 800 + R100 ✓M A = R 900 ✓ A	1 MA adding correct values 1A correct answer **AO**	F1	2
	2.1.2	5 × 270 ✓ RT ✓ MA = R1 350 **OR** R1 080 + R270✓ RT ✓ MA = R1 350	1 RT for R270 1 MA multiplying correct values 1 RT for R270 1 MA adding correct values	F2	2
	2.1.3	$\frac{2\,160}{270}$ ✓RT ✓MA = 8 ✓CA **OR** 1 620 – 900 ✓RT = 720 $\frac{720}{90}$ ✓MA = 8 ✓CA **OR** 270 × 8✓RT ✓MA = 2 160✓CA	1 RT correct values 1 MA dividing correct values 1 CA answer 1 RT correct values 1 MA dividing correct values 1 CA answer 1 RT correct values 1 MA multiplying correct values 1 CA answer	F2	3

	2.1.4(a)	(5; 1 350) ✓RT ✓A	1 RT correct values 1A correct order	F1	2
	(b)	6 ✓✓A	2 A correct answer	F1	2
	2.1.5	Total expenses = R 900 ✓A + 90 (n) ✓ MA	**CA fixed cost from 2.1.1** 1 A for R900 1 MA for adding variable cost	F2	2

	2.1.6	Income = 100 × R270 ✓ MA = R27 000 ✓A Expenses = R 900 + 90 (100) ✓MCA = R9 900 ✓CA Profit = R27 000 – R9 900 ✓MCA = R17 100 ✓CA **OR** R270 – R90 ✓MA = R180 ✓A ∴ 100 × R180 ✓ MCA = R18 000 ✓CA Profit = R18 000 –R 900 ✓MCA = R17 100 ✓CA	**CA from 2.1.5 (Expenses)** 1 MA multiplying correct values 1A correct answer 1 MCA adding fixed and variable expenses together 1CA correct answer 1 MCA subtracting expenses from income 1 CA answer	F3	6
2.2	2.2.1	1st year : 12% + 100% = 112% ✓MA = 1.12 ✓S 1,12 ×R60 000 ✓M = R 67 200 ✓A 6 months : $\frac{12\%}{2}$ = 6% ✓A 6% + 100% = 106% = 1,06 ✓A 1,06 × R67 200 ✓ MCA = R 71 232 ✓ CA **OR** 1st year : 12% + 100% = 112% ✓MA = 1.12 ✓S 6 months : $\frac{12\%}{2}$ = 6% ✓A 6% + 100% = 106% = 1,06 ✓A R60 000 ×✓M 1.12 ✓A× 1.06✓MCA = R71 232✓CA	1 MA increasing the percentage 1S simplification 1M multiplying correct values 1A correct answer 1A percentage 1A increased percentage 1 MCA multiplying correct values 1 CA answer	F3	8
	2.2.2	R 71 232 - R60 000✓MA = R 11 232 ✓A	**CA from Q2.2.1** 1MA subtracting correct values 1A correct answer	F2	2
					[29]

QUESTION 3					(28 marks)
Q	**Answer**		**Explanation**	**Topic Level**	**Mark**
3.1	3.1.1	0,741 × 1 000 000 ✓MA = 741 000 ✓A	1MA multiply by 1 000 000 1A correct answer **AO**	DH2	2
	3.1.2	Northern Cape ✓✓A	2A correct answer	DH1	2
	3.1.3	Increases ✓A Pass rate of 2024 is higher than 2023 across all provinces ✓✓J **OR** All provinces improved ✓A from 2023 to 2024. ✓✓J	1A correct answer 2J reasoning	DH4	3
	3.1.4	Discrete ✓A It can be counted ✓J	1A correct choice 1 J reasoning	DH2	2
	3.1.5	Range = Max value − Min value 14,3 = 89,7 − **S** ✓SF **S** = 89,7 − 14,3 ✓S = 75,4 ✓A	1 SF correct values 1S simplification/changing the subject of the formula 1A correct answer	DH3	3
	3.1.6	$Mean = \frac{T+91,9+88,5+\cdots}{9}$ ✓MA $85,5 = \frac{600,3+2T}{9}$ ✓S 769,5 MA = 600,3 +2 T 769,5 − 600,3 = 2 T ✓MCA 2 T = 169,2 ✓S T = 84,6 ✓CA	1MA mean concept 1 S simplification 1MCA changing subject of formula 1S value of 2 T 1 CA answer	DH3	5
3.2	3.2.1	1 060: 15 657 ✓RT ✓A *1 : 14,77* ✓S	1 RT correct values 1A correct order 1S answer in unit form **NPR**	DH2	3
	3.2.2	783; 824; 837; 865; 911; 926; 946; 1 060; 1 095; 1 161 ✓✓A	2A correct order	DH2	2

	3.2.3	Median $\frac{911+926}{2}$ ✓MA = 918.5 ✓A Q1 = 837 ✓A Q3 = 1060 ✓A Min = 783 ✓A Max = 1 161 ✓A	**CA (arrangement) from Q 3.2.2** 1MA median concept 1A correct median 1A correct Q1 1A correct Q3 1A correct min 1A correct max	DH3	6
					[28]

QUESTION 4					**(28 marks)**
Q	**Answer**		**Explanation**	**Topic Level**	**Mark**
4.1	4.1.1	R17 235 + R9 444 ✓MA = R26 679 ✓A	1 MA adding correct values 1A correct answer **AO**	F1	2
	4.1.2	$\frac{R680\,000}{12}$ ✓MA = R56 666,67 ✓A Gross salary = R680 000 + R56 666,67 ✓MCA = R736 666,67 ✓CA **OR** $\frac{R680\,000}{12}$ ✓MA = R56 666,67 ✓A Gross salary = R56 666,67 × 13 ✓MCA = R736 666,71 ✓CA	1 MA for monthly gross 1A correct answer 1MCA adding bonus 1 CA answer 1 MA for monthly gross 1A correct answer 1 MCA multiplying by 13. 1 CA answer	F2	4
	4.1.3	$\frac{30}{100}$ × R680 000 ✓MA = R204 000 ✓CA Maximum is R100 000 Only R100 000 is tax deductible✓J	1 MA multiplying correct values 1 CA answer 1 J identifying maximum	F4	3
	4.1.4	R736 666,67 – R100 000 ✓RT ✓M R636 666,67 ✓CA **OR** R736 666,71 – R100 000 ✓RT ✓M R636 666,71 ✓CA	**CA from 4.1.2 and 4.1.3** 1 RT correct values 1M subtracting donation 1 CA answer	F2	3
	4.1.5	Bracket 4/4th Bracket ✓✓RT *(Accept rate of tax)*	**CA from 4.1.4** 2 RT correct bracket	F1	2

	4.1.6	18% of taxable income ✓A 18% × 95 750 ✓MA = 17 235 ✓CA −Rebate =17 235 −17 235 ✓MCA = 0 ✓CA ∴ *The claim is valid* ✓O **OR** 17 235÷ 18% ✓A✓MA = R95 750✓CA R95 750 − R95 750✓MCA = 0✓CA ∴ *The claim is valid* ✓O	1A correct bracket 1 MA multiplying correct values 1 CA answer 1 MCA subtract rebates 1 CA answer 1 O conclusion	F4	6
4.2	4.2.1 (i)	C ✓A	3 A correct answers	P2	3
	(ii)	M ✓A			
	(iii)	CS ✓A			
	4.2.2	$\frac{6}{9}$ ✓✓RT = 0,66666 ✓CA ≈ 0,7 ✓R	1 RT numerator 1 RT denominator 1CA answer 1R to **one decimal** place	P2	4
	4.2.3	• To cater for different preferences ✓✓O **OR** • Cater for people who might have allergies ✓✓O *(Accept any sensible/logical answer)*	2 O correct reason	P4	2
					[29]

QUESTION 5					(34 marks)
Q	**Answer**		**Explanation**	**Topic Level**	**Mark**
5.1	5.1.1	Car ✓ 50% of the drivers are generating more than R 1 000 ✓✓J	1RT car 2O justification	DH4	3
	5.1.2	$\frac{25}{100}$ ✓$RT \times 300$ ✓MA $= 75$ ✓CA **OR** $\frac{75}{100}$ ✓$RT \times 300$✓$MA = 225$ $\therefore 300 - 225 = 75$ ✓	1 RT 25% 1 MA multiplying correct values 1 CA answer	DH2	3
	5.1.3	100% + 20% = 120%✓A $\frac{100}{120}$ ✓M × R1 600 ✓MA $=$ R1 333,33 ✓CA **OR** 100% + 20% = 120%✓A $\frac{120}{100}$ ✓M = 1,2 $\frac{1\,600}{1{,}20}$ ✓MA = 1 333,33✓CA	1A for 120% 1M for correct fraction 1MA multiplying by R1 600 1 CA answer	DH3	4
	5.1.4	IQR = $Q_3 - Q_1$ ✓F = 1 200 − 400 ✓RT = 800 ✓CA *(Accept range for Q3: 1 200 – 1 220)*	F correct formula RT both values 1 CA answer	DH2	3
5.2	5.2.1	ZAR ✓A • because you get more rupees when you exchange ✓✓O **OR** • 1-Indian rupee exchanges for less than a 1 rand	1 A correct answer 2 O for justification	F4	3

	5.2.2	$\frac{R30\,000}{R0.21} \times 1$ Indian rupee ✓C $142\,857{,}1429$ ✓S $-$ 3000 ✓MCA $= \frac{139\,857.1429}{12\,000}$ ✓MCA $= 11.6547619$ ✓CA ≈ 11 ✓R $\therefore It\ won't\ be\ enough.$ ✓J **OR** Shipping $3\,000 \times 0{,}21$✓C $= R630$ ✓S Cost of 12 bikes: $12\,000 \times 0{,}21$✓MCA $\times 12$✓MCA $= R30\,240$ Total costs: $R630 + R30\,240$✓M $= R30\,870$✓CA R30 000 will not be enough, there will be a shortfall of R870. ✓J **OR** $1\ Indian\ Rupees = 0{,}21\ ZAR$ Number of Indian rupees $= \frac{R30\,000}{0{,}21}$ ✓C $142\,857{,}1429$ ✓S $Indian\ Rupees - 3000$ ✓MCA ✓MCA $139\,857{,}1429 - (12 \times 12\,000)$ $139\,857{,}1429 - 144\,000$✓M ✓CA $= -4\,142{,}8571\ Indian\ rupees$ $\therefore It\ will\ not\ be\ enough$✓J	1 C conversion 1S simplification 1MCA subtracting 3 000 1MCA dividing by 12 000 1 CA answer 1R rounding down 1 J conclusion	F4	7
	5.2.3	• Convenience ✓✓O • Time saving ✓✓O • Reduces travelling cost *(Accept any sensible/logical answer)*	2 O answer 2 O answer	F4	4

5.3	Cost of 1 kg = R270 ÷ 4 ✓MA = R67.50 ✓A Cost in cents = R67.50 × 100 ✓C = 6 750 cents ✓A Percentage Increase: $\frac{6\,761-6\,750}{6\,750}$ ✓SF✓SF × 100 $= 0{,}162\%$ ✓CA **OR** $6761 \div 100$ ✓C $= R67{,}61$✓A × $4kg$ ✓MA $= R270{,}44$ ✓A $= \frac{27\,044 - 27\,000}{27\,000}$ ✓SF✓SF × 100 $= 0{,}162962963\%$ ✓CA **OR** 270×100 ✓C $= 27\,000\ cents$ ✓A 6761×4 ✓MA $= 27\,044\ cents$ ✓A $= \frac{27\,044-27\,000}{27\,000} \times 100$ ✓SF✓SF $= 0{,}162962963\%$ ✓CA	1 MA dividing by 4 1A correct answer 1C conversion 1A correct answer 1SF substitution numerator 1SF denominator 1 CA answer **NPR**	F3	7
				[34]
				150