LIMPOPO

PROVINCIAL GOVERNMENT

REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF

EDUCATION

CAPRICORN SOUTH DISTRICT

MATHEMATICAL LITERACY

GRADE 12

2024 INVESTIGATION

MARKING GUIDELINES

MARKS: 73

The memorandum consists of 06 pages

QUESTION 1	
QUES	SOLUTION
1.1	Prime interest is the basic or default interest rate that you could be charged when borrowing for big purchases such as a home or a car. ✓✓**A** **(2)**
1.2	Deposit = $\frac{10}{100}$ × R1 060 000 ✓**MA** = R106 000 ✓**A** Loan value = R1 060 000 – R106 000 ✓**MA** = R954 000 ✓**A** **(4)**
1.3	Interest rate = prime interest + 1,5% = 9,5% ✓**A** + 1,5% = 11% ✓**A** Loan period = 25 years and factor = 9,8 ✓**A** Monthly repayment = $\frac{\text{Loan value}}{1\ 000}$ × factor ✓**F** = $\frac{\text{R954 000}}{1\ 000}$ × 9,8 ✓**SF** = R9 349,20 ✓**A** **(6)**
1.4	Number of payments over 25 years = 25 years × 12 ✓**MA** = 300 ✓**A** Real costs = R9 349,20 × 300 = R2 804 760 ✓**A** Interest paid = R2 804 760 – R954 000 ✓**MA** = R1 850 760 ✓**A** **(5)**
	[17]

QUESTION 2	
QUES	SOLUTION
2.1.	Monthly salary is the money that someone is paid every month by his or her employer. ✓✓**A** AND Annual salary is the amount of money your employer pays you over a period of twelve months. ✓✓**A** **(4)**
2.2	Two types of Non-Taxable incomes: Pension Fund ✓✓**A** Donation ✓✓**A** **(4)**
2.3	Taxable income = Annual salary – Pension Fund – Donation ✓✓**A** **OR** Taxable income = Annual salary – (Pension Fund + Donation) ✓✓**A** **(2)**
2.4	Rates of tax = R121 475 + 36% (R673 000 – R512 801) ✓**SF** = R121 475 + R57 671,64 = R179 146,64 ✓**A** = R179 147 ✓**R** **AND** Total rebates = R17 235 + R9 444 + R3 145 ✓**MA** = R29 824 ✓**A** Threshold = $\frac{100}{18} \times$ R29 824 ✓**A** = R165 688,8889 = R165 689 ✓**R** **(7)**

2.5	Taxable income = R0,915 000 million = R0,915 000 million × 1 000 000 ✓**MA** = R915 000 ✓**A** Rates of tax = R251 258 + 41% (R915 000 – R857 900) ✓**A** ✓**SF** = R251 258 + R23 411 = R274 669 ✓**CA** Annual tax = R274 669 – R17 235 ✓**MA** – R9 444 ✓**MA** = R247 990 Monthly tax = $\frac{\text{R}247\ 990}{12}$ ✓**MA** = R20 665.83 ✓**A** **(9)**
2.6	Amount earned per month = R25,42 × (8 × 5) × 4 ✓**MA** = R4 067.20 Amount earned per year = R4 067.20 × 12 ✓**MA** = R48 806.40 ✓**A** The amount earned is below the threshold of R95 750. ✓**O** **(4)**
	[30]

QUESTION 3	
QUES	**SOLUTION**
3.1	Tariff is a fixed price of a service or product. ✓✓**A** **(2)**
3.2	Four measures that can assist consumers to use water sparingly. • Do not run the hose while washing your car. ✓**A** • Turn off the water while brushing your teeth. ✓**A** • Use a broom to clean driveways and sidewalks. ✓**A** • Check pipes for leaks. ✓**A** • Water your lawn only when it needs it. **(4)**

3.3	Percentage increase $= \frac{\text{New amount} - \text{Old amount}}{\text{Old amount}} \times 100\%$ ✓**F** $= \frac{\text{R}40{,}60 - \text{R}34{,}82}{\text{R}34{,}82} \times 100\%$ ✓**SF** $= 0{,}165996553 \times 100\%$ $= 16{,}5996553\%$ ✓**S** $= 16{,}6\%$ ✓**R** **(4)**
3.4	VAT amount $= \frac{15}{100} \times \text{R}1\ 000$ = R150 ✓**A** Remaining amount = R1 000 – R150 = R850 ✓**MCA** 6 kl × R0 R 0,00 (free) 6 kl × R26,75 = R160,50 ✓**A** 17,79 kl × R38,76 = R689,54 ✓**A** Total number of kilolitres bought = 6 kl + 6 kl + 17,79 kl ✓**MA** = 29,79 kl ✓**A** **(6)**
3.5	To charge higher prices for high consumption. ✓✓**A** OR To discourage excessive water use. ✓✓**A** **(2)**

3.6	VAT amount $= \frac{15}{115}$ ✓**A**✓**A** $\times$ R34,82 = R4,54 ✓**A** OR VAT exclusive amount $= \frac{100}{115} \times$ R34,82 = R30,28 ✓**A** VAT amount = R34,82 – R30,28 ✓**MA** = R4,54 ✓**A**	**(3)**
3.7	6 kl $\times$ R0 R 0,00 (free) 6 kl $\times$ R26,75 = R160,50 18 kl $\times$ R38,76 = R697,68 ✓**A** 10 kl $\times$ R40,60 = R406,00 ✓**A** **Total amount = R1 264,18** ✓**A** No. ✓**A** Because they are not consuming those kilolitres in a month in a small dwelling. ✓**O**	**(5)**
		[26]
TOTAL MARKS: 73		