LIMPOPO

PROVINCIAL GOVERNMENT

REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF

EDUCATION

NATIONAL SENIOR CERTIFICATE

GRADE 12

MATHEMATICAL LITERACY

ASSIGNMENT

Date Issued: 30 January 2026

Date of Administration: 06 February 2026

MARKS: 100

TIME: 2 hours

This Question paper consists of 7 pages including the cover page

INSTRUCTIONS AND INFORMATION

1. This question paper consists of **FIVE (5)** questions.
2. Number answers correctly according to the system used in this question paper.
3. An approved calculator (non-programmable and non-graphical) may be used.
4. All the final answers must be rounded off according to the context, unless stated otherwise.
5. Units of measurement must be indicated where applicable

QUESTION 1

Below is a bank statement for Ms TT Mushasha for the month of March 2022. Use the account statement below to answer the questions that follow.

TABLE 1: BANK STATEMENT FOR MARCH 2022

FGT BANK
Makhado Crossing
Nkuzana-Masia Village
0920

TT Mushasha
43 Hluvuka Street Bungeni
Hlanganani 0960
ELITE CURRENT ACCOUNT NUMBER; 0 763 234 62

Details	**Service fee**	**Debits**	**Credits**	**Date**	**Balance**
Balance brought forward				02/15	2 875,77-
Statement costs	#	20,18-		02/17	2 895,95-
Card purchase		296,10-		02/20	3 193,05-
Salary			**B**	02/21	15 761,80
Insurance premium		187,27-		02/25	15 574,53
Dividend YY4098 shares			840,00	02/28	16 414,53
Bond		4 069,52-		03/02	12 345,01
Auto Bank deposit			1 200,00	03/05	13 545,01
Fee Bank deposit	#	42,37-		03/05	13 502,64
Fuel CLTX Garage		729,45-		03/07	12 773,19
ATM withdraw		1 800,00-		03/10	10 973,19
Withdrawal fee	#	17,47-		03/10	10 955,72
Fixed monthly fee	#	100,88		03/11	10 854,84
Balance carried forward				03/15	10 854,84

1.1 Explain the terms "credit" and "debits" according to the context used above. (4)

1.2 Identify the type of account used in the above statement. (2)

1.3 Determine the balance on the 14/02/2022. (2)

1.4 Calculate the salary **B** paid into her account on 21/2/2022. (2)

1.5 Calculate the total bank fees charged in the above statement 2022. (2)

1.6 Calculate the total amount of debits. (3)

[15]

QUESTION 2

TABLE 2 below shows the rates at which tax was levied to individuals in South Africa for the 2020/2021 tax year.

TABLE 2: RATES FOR INDIVIDUALS 2020/2021 TAX YEAR

RATES APPLICABLE TO INDIVIDUALS 2021 TAX YEAR (1 MARCH 2020 – 28 FEBRUARY 2021)		
Tax Bracket	**Taxable Income (R)**	**Rates of Tax (R)**
1	1 – 205 900	18% of taxable income
2	205 901 – 321 600	37 062 + 26% of taxable income above 205 900
3	321 601 – 445 100	67 144 + 31% of taxable income above 321 600
4	445 101 – 584 200	105 429 + 36% of taxable income above 445 100
5	584 201 – 744 800	155 505 + 39% of taxable income above 584 200
6	744 801 – 1 577 300	218 139 + 41% of taxable income above 744 800
7	1 577 301 and above	559 464 + 45%of taxable income above 1 577 300

Rebates	***Value***	***Tax threshold***
**Below age 65*	*R14 958*	*R83 100*
**Age 65 to below 75*	*R8 199*	*R128 650*
**Age 75 and above*	*R2 736*	*R143 850*

[Source: South African Revenue. Tax Pocket Guide 2020/2021]

Use the information above to answer the questions that follow.

2.1 Write down the tax bracket in which a person who earns R473 496 per year, falls. (2)

2.2 Determine the maximum income a person that is 65 years old, must earn before starting to pay tax. (2)

2.3 Mrs Sithole, a 65-year-old saleswoman, earned a gross monthly salary of R35 455 during the 2020/2021 tax year. 7, 5% of her gross salary is deducted for contributions towards her pension fund.

2.3.1 Calculate her annual gross salary. (2)

2.3.2 Calculate her tax rebate. (2)

2.3.3 Calculate her annual taxable income. You may use the formula: (3)

$$\boldsymbol{Annual\ Taxable\ Inco = (annual\ Gross\ Salary - annual\ Pension)}$$

2.3.4 Hence, use the tax table for 2020/2021 and the information above to calculate Mrs Sithole's annual income tax. (6)

[17]

QUESTION 3

3.1 During a particular month, Domestic worker's employer, Onama, used 25 kℓ of water. TABLE 3 shows the residential water tariffs, including VAT.

TABLE 3: RESIDENTIAL WATER TARIFFS INCLUDING VAT

Block	**Tariff in kilolitres (kℓ)**	**Tariff in Rands per kilolitre**
Block 1	0–6 kℓ	R10,34
Block 2	7–15 kℓ	R24,54
Block 3	16–30 kℓ	R27,63
Block 4	31–60 kℓ	R33,10
Block 5	61 or more kℓ	R38,91

[Source: Mangaung.co.za]

Use TABLE 3 and the information above to answer the questions that follow.

3.1.1 Determine the maximum number of kℓ that can be charged in Block 2. (2)

3.1.2 Calculate the amount that Onama will pay for the water used. (5)

3.2 The following tables show municipal residential water and sanitation tariffs for domestic users.

TABLE 4: MUNICIPAL RESIDENTIAL WATER AND SANITATION TARIFFS

Residential Water Tariffs (Domestic Full and Domestic Cluster)	
Water Steps (1 kl = 1 000 litres)	**Year 2020/2021 Rands (Inc. VAT)**
Step 1 ($0 \leq 6$ kl)	R17,92 (free for indigent households)
Step 2 ($> 6 \leq 10{,}5$ kl)	R25,49 (free for indigent households)
Step 3 ($> 10{,}5 \leq 35$ kl)	R36,19
Step 4 (> 35 kl)	R79,46
Residential Sanitation Tariffs (Domestic Full and Domestic Cluster)	
Water Steps (1 kl = 1 000 litres)	**Year 2020/2021 Rands (Inc. VAT)**
Step 1 ($0 \leq 4{,}2$ kl)	R15,74 (free for indigent households)
Step 2 ($> 4{,}2 \leq 7{,}35$ kl)	R22,40 (free for indigent households)
Step 3 ($> 7{,}35 \leq 24{,}5$ kl)	R33,52
Step 4 ($> 24{,}5 \leq 35$ kl)	R60,32

- *Sanitation is charged up to a maximum of 35 kl.*
- *Domestic Full = Standalone houses.*
- *Domestic Cluster = Flats, sectional title units, cluster developments and gated villages.*

3.2.1 Mr Mbhazima is under the free indigent household. Calculate his water bill for the month of September if he uses 35 kl of water. (3)

3.2.2 Mr Mahada is not under the indigent households. Calculate his sanitation bill if he uses 25 kl. (3)

3.2.3 The sanitation bill for Mr Mahada is VAT inclusive, calculate his bill before VAT was added. (3)

3.2.4 Mr Chauke, who is also not under the indigent households, made a payment of R580 towards his sanitation tariff. Determine how many litres of water he used for that month. (3)

[19]

QUESTION 4

Mr Parker, aged 44, earns a monthly basic salary of R74 800. He has a Medical Aid that covers himself, his wife and their 3 children. The following deductions are made from his salary.

- **Pay As You Earn (PAYE)**
- **UIF**
- **Medical Aid**
- **Pension Fund (7,5% of basic salary)**
- **Donation of R5 000 to Orphanage**

NB: UIF deduction for persons earning taxable income that is R17 712 or more per month is 1% of R17 712 or R177, 12 per month

TABLE 5: INCOME TAX TABLES – 2023/2024

Taxable Income (R)	Rates of Tax
R0 – R 237 100	18% of each R1
R237 101 – R 370 500	R 42 678 + 26% of the amount above R 237 100
R370 501 – R 512 800	R 77 362 + 31% of the amount above R 370 500
R512 801 – R 673 000	R121 475 + 36% of the amount above R 512 800
R673 001 – R 857 900	R179 147 + 39% of the amount above R 673 000
R857 901 – R1 817 000	R251 258 + 41% of the amount above R 857 900
R1 817 001 and above	R644 489 + 45% of the amount above R1 817 000
Tax Rebate	**Tax Thresholds**
Primary R17 235	Under 65 R 95 750
Secondary (65 and older) R 9 444	65 and older R148 217
Tertiary (75 and older) R 3 145	75 and older R165 689
Medical Tax Credits	**Amount per month**
Principal member	R364
First dependent	R364
Each additional dependent	R246

[Adapted from www.sars.gov.za]

Use the information above and TABLE 5 to answer the questions that follow:

4.1 What does the acronym UIF stand for? (2)

4.2 Write down the amount that is deducted every month for UIF. (2)

4.3 Calculate Mr. Parker's annual pension fund deduction. (3)

4.4 Mr. Parker's pension fund and donation contributions are allowable tax deductions. Calculate his annual taxable income. You may use the formula: (4)

Monthly taxable income = Basic salary – Pension fund – Donation

4.5 Calculate Mr. Parker's annual Medical Tax Credits. (3)

4.6 Use the Table below to answer questions that follow.

Andrew aged 35 years, earns a monthly taxable income of R43 000. He has a Medical Aid that covers himself and his two children.

TABLE 6: 2023 TAX YEAR (1 MARCH 2022 – 28 FEBRUARY 2023)

Taxable Income (R)	Rates of tax (R)
0 – 226 000	18% of taxable income
226 001 – 353 100	40 680 + 26% of taxable income above 226 000
353 001 – 488 700	73 726 + 31% of taxable income above 353 100
488 701 – 641 400	115 762 + 36% of taxable income above 488 700
641 401 – 817 600	170 734 + 39% of taxable income above 641 400
817 601 – 1 731 600	239 452 + 41% of taxable income above 817 600
1 731 601 and above	614 192 + 45% of taxable income above 1 731 600

Rebates	Tax Threshold
Below age 65 .... R16 425,00	Below age 65 .... R91 250,00
Age 65 to below 75.........R9 000,00	Age 65 to below 75.........R141 250,00
Age 75 and over..............R2 997,00	Age 75 and over..............R157 900,00

Monthly Medical Aid Tax Credits	
Principal member	R347,00
First dependent	R347,00
Each additional dependent	R234,00

[Adapted from www.sars.gov.za]

Use Table and the information above to answer the questions that follow.

4.6.1 Show how the amount of R40 680 in the second bracket was calculated. (2)

4.6.2 Calculate Andrew`s annual taxable income. (2)

4.6.3 Calculate Andrew`s yearly medical aid credits (rebate). (4)

4.6.4 Calculate Andrew`s monthly income tax. (7)

4.6.5 Andrew claims that if he did not belong to a medical aid, he would pay R1 000 more tax per month. Verify with calculations if his claim is valid. (3)

4.6.6 Give one reason why people should pay tax. (2)

[34]

QUESTION 5

Mogodu Monday has become a popular South African weekly occasion wherein many celebrate the most unpopular day of the week by turning it into an enjoyable time over great food with family and friends. During this day, mogodu is often enjoyed with a side of warm pap, samp or dumpling.

A small business sells a plate of mogodu for R50,00.

NOTE WELL: PLATE OF MOGODU SERVED WITH PAP
Mogodu is a combination of chopped tripe and intestines served as a stew.

Pap is a traditional porridge made from maize meal.
The cost to make one plate of mogodu is given by the following formula:

Total cost $=$ $\mathbf{R1\ 200 + (26 \times m)}$ where $\mathbf{m}$ $=$ number of plates

[Adapted from #ReMojaKaofela@MojaCafe]

Use the information above to answer the questions that follow.

5.1 Use the equation above to determine the number of plates sold if the total cost is R2 760. (4)

5.2 Construct a formula that can be used to calculate the income from selling a plate of mogodu, in the form: (2)

Income = ___

5.3 TABLE 6 below shows the total cost and income from selling plates of mogodu.

TABLE 6: COST AND INCOME OF SELLING PLATES OF MOGODU

Number of plates	**0**	**10**	**30**	**50**	**70**	**90**	**100**
Cost (R)	1 200	1 460	1 980	2 500	3 020	3 540	3 800
Income (R)	0	500	1 500	2 500	3 500	4 500	4 000

5.3.1 Explain the term ***break even*** in this context and identify the number of plates that must be sold to break even. (4)

5.3.2 The manager of the small business stated that she could make a $\frac{8}{25}$ profit on 100 plates of mogodu sold. (5)

Verify, showing ALL calculations, if his statement is correct.

[15]

TOTAL MARKS: 100

GRADE 12 ASSIGNMENT MEMORANDUM ERRATA

QUESTION 1

1.4. R 15 761,80 + R 3 193, 05 ✓

= R 18 934,85 ✓

QUESTION 2

2.3.4 TOTAL ANNUAL INCOME TAX

$= R67\,144 + 31\%\ of\ Taxable\ income\ above\ R321\,600$ ✓

$= R67\,144 + 0,31 \times (R393\,550,50 - R321\,600)$ ✓

$= R67\,144 + 0,31 \times R71\,950,50$

$= R67\,144 + R22\,304,66$ ✓

$= R89\,448,66 - R23\,157\ (Secondary\ Rebate)$ ✓

$= R\,66\,291,66$ ✓

QUESTION 3

3.1.2. $25\,kl = 6\,kl + 9\,kl + 10\,kl$ ✓

$Block\,1 = 6 \times R\,10,34 = R\,62,04$ ✓

$Block\,2 = 9 \times R\,24,54 = R\,220,86$ ✓

$Block\,3 = 10 \times R\,27,63 = R\,276,30$ ✓

TOTAL = R 559,20 ✓

3.2.2. $Block\,1\,(0 \leq 6\,kl) = (6 \times 0) = R0,00$ ✓

$Block\,2\,(> 6 \leq 10,5\,kl) = (4,5 \times 0) = R0,00$

$Bock\,3\,(> 10,5 \leq 35\,kl) = 24,5 \times R36,19 = R886,66$ ✓

$Total\ Amount\ Due = R886,66$ ✓

3.2.4. R 580 – R 66,11 = R513,89 is 4,2 kl ✓
R 513,89 – R 70,56 = R443,33 is 3,15 kl ✓
R 443,33 ÷ R 33,52 = 13,23 kl

Total kilolitres = 4,2 + 3,15 + 13,23 = 20,58 kl ✓

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MATHEMATICAL LITERACY

ASSIGNMENT MEMO

06 FEBRUARY 2026

This Memorandum consists of 5 pages including the cover page

Symbol	Explanation
M	Method
MA	Method with accuracy
CA	Consistent accuracy
MCA	Method with constant accuracy
A	Accuracy
C	Conversion
S	Simplification
RT / RG / RD	Reading from a table / graph / diagram
SF	Correct substitution in a formula
O	Opinion / Example / Definition / Explanation
R	Rounding off
NPR	No penalty rounding or omitting units
AO	Answer only, full marks
J	Justify

Ques	Solution	Explanation	Marks
1.1	Credit – Money deposited into TT Mushasha's account ✓✓ Debit – Money withdrawn or taken out from TT Mushasha's account✓✓	2A Correct definition of Credit 2A Correct definition of Debit	4
1.2	Elite current account ✓✓	2RT Type of account	2
1.3	$-R2\,895,77$ ✓✓ **$R2\,895,77$ (1 Mark for positive amount)**	2A Correct negative Balance	2
1.4	$R15\,761,80 + R3\,192,05$ ✓ $= R18\,954,30$ ✓	1M Adding correct values 1A Answer	2
1.5	$R20,18 + R42,37 + R17,47 + R100,88$ ✓ $= R180,82$ ✓	1M Adding correct values 1A Answer	2
1.6	$R20,18 + R296,10 + R187{,}27 + R4\,069,52 + R42,37 + R729,45 + R1\,800 + R17,47 + R100,88$ ✓✓ $= R7\,263,24$	2M Adding correct values 1A Answer	3
2.1	Tax bracket 4✓✓	1A Correct tax bracket	2
2.2	R128 650, 00✓✓	2A Correct Tax threshold	2
2.3.1	R35 455 ×12 ✓ = R 425 460, 00✓	1M Multiplying by 12 1A Annual gross	2
2.3.2	R14 958 + R8 199 ✓ = R23 157, 00 ✓	1M Adding correct rebates 1A Answer	2
2.3.3	$\frac{7{,}5}{100} \times R425\,460$ = R31 909,50 ✓ **Annual Taxable Income** = (**Annual gross** − **Annual Pension**) = R 425 460 − R31 909,50 ✓ = R393 550, 50 ✓	1M Calculating annual pension 1MA Subtracting Correct values 1CA	3
2.3.4	R67 144 + 31% of Taxable income above R321 600 ✓ R67 144 + 0,31 × (R425 460 - R321 600)✓ R67 144 + 0,31 × R71 950 R67 144 + R22 304, 66✓✓ R89 448, 66 – R23 157 (Secondary Rebate)✓ R 66 291, 66✓	1F Correct tax bracket 1SF Substitution 2M Adding correct values 1MA Subtracting correct rebate 1CA Answer	6

Ques	Solution	Explanation	Marks
3.1.1	9 kl ✓✓	2A RT simplification	2
3.1.2	25 kl = 6 kl + 9 kl + 10 kl✓ Block 1 = 6 × R10,34 = R 62,04✓ Block 2 = 9 × R24,54 = R220,54✓ Block 3 = 10 × R27,63 = R275,40✓ Total = R557,98✓	1A Adding values 1M rate x 6 1M rate x 10 1S R275,40 1CA Answer	5
3.2.1	Block 1 (0 ≤ 6 kl) = (4 x 0) = R0,00✓ Block 2 (> 6 ≤ 10,5 kl) = (4,5 × 0) = R0,00 Bock 4 (>10,5 ≤ 35 kl) = 4,5 × R36,19✓ = R868,56 Total Amount Due = R868,56✓	1M rate of R0,00 1M multiply by R36,19 1CA Answer	3
3.2.2	Block 1 = 4,2 × R15,74 = R66,11✓ Block 2 = 3,15 × R22,40 = R70,56 Block 3 = 17,15 × R33,52 = R574,87✓ Block 4 = 0,5 × R60,32 = R30,16 Total Bill = R741,70 ✓	1M rate of 4,2 1M multiply by R33,52 1CA Answer	3
3.2.3	Bill before VAT = R741,70 ÷ 1,15 ✓✓ = R644,96 ✓	2MCA divided by 1,15 1CA Answer	3
3.2.4	580 – 66,11 = R513,89 is 4,2 kl✓ 513,89 – 70,56 = R443,33 is 3,15 kl ✓ 443,33 ÷ 33,52 = 13,23 kl Total kilolitres = 4,2 – 3,15 + 13,23 = 10,5 kl ✓	1M subtraction 1S R443,33 1CA Answer	3

QUESTION 4 (34)

Ques	SOLUTION	EXPLANATION	MARKS
4.1	Unemployment Insurance Fund✓✓	**2 A**	2
4.2	R 177,12 ✓✓	**2 RT**	2
4.3	Annual pension fund = R 74 800 × 12✓ × 7,5%✓ = R 67 320	**2MA multiplying by 12 and by 7,5%** **1MCA** correct answer	3
4.4	Monthly taxable income = Basic salary – Pension fund – Donation = R 74 800 – R 5 610 – R 5 000✓ = R 64 190✓ Annual taxable income = 12 × R 64 190✓ = R 770 280✓	**2MA** subtracting pension fund and donations **1MCA** correct monthly taxable income **1MCA** correct annual taxable income	4
4.5	Total Annual Medical Aid Credits =[(2× R364) + (3× R 246)] ✓× 12 = R 1 466 × 12✓ = R 17 592✓	**1SF** correct substitution of members to the medical credits **1MA** multiplying by 12 **1MCA** correct answer	3
4.6.1	18% × R226 000,00✓✓ = R40 680,00	1RT correct value 1MA multiplying by18% (2)	F1

4.6.2	Annual Taxable Income = R43 000 × 12✓ = R516 000✓	1MA multiplying by 12 1A answer (2)	F1
4.6.3	Yearly medical aid credits = (R347 × 2 + 234)✓ × 12 = R928 ✓× 12✓ = R11 136,00✓	1MA addition A monthly credit 1MCA multiplying by 12 1CA answer (4)	F2
4.6.4	Andrew annual income tax = R115 762 + 36% (R516 000 ✓– R488 700)✓ =125 590✓ – R16 425 – R11 136✓ = R98 029✓ Monthly income tax = R 98 029 ÷12 = R8 169,08✓	**CA from 4.6.2** 1M correct bracket 1SF taxable income 1CA simplification 1MCA subtracting correct rebate & medical credits 1S simplification 1CA answer (7)	F3
4.6.5	Monthly medical aid credits = = R928✓ Monthly income tax without medical credits = R8 169,08 + 928 = R9 097,08✓	1A answer	F4
	Andrew`s claim is invalid as he will be paying less than R1 000,00 extra per month.✓	1A answer 1O opinion (3)	
4.6.6	People pay tax to help the government to provide better for its goods and services, like education, housing, and roads.✓✓	2O reason (2)	F4

QUESTION 5 [15 MARKS]

Q	Solution	Explanation	T/L
5.1	Total cost/*Totale koste* = R1 200 + 26m ✓SF R2 760 = R1 200 + 26m ✓MA R2 760 – R1 200 = 26m ✓CA R1 560 = 26m M = 60✓CA	1SF correct substitution 1MA subtracting R1 200 1CA simplification 1CA number of plates (4)	F L2
5.2	✓✓A Income = R50 × number of plates OR ✓ ✓ Income = R 50 × **n**, where **n** is the number of plates	2A correct formula (2)	F L2

5.3.1	**Break-even** is where the cost of making a plate of mogodu is equal to the income of selling a plate mogodu ✓✓O / ✓✓RT 50	2O correct explanation (2) 2 RT correct break-even point (2)	F L2
5.3.2	Profit for 100 plates = ✓RT ✓MA R5000 – R3800 = R1 200 ✓CA Fraction of 100 plates $= \frac{1200}{3800}$ ✓M $= \frac{8}{25}$ ✓CA Her claim is correct ✓O	1RT correct values 1MA subtracting correct values 1A correct profit 1CA simplification 1O conclusion (5)	F L4