LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

NATIONAL SENIOR CERTIFICATE

GRADE 12

MATHEMATICAL LITERACY

TEST 1

MARCH 2026

DURATION: 2 Hours

MARKS: 100

This question paper consists of 11 pages including the cover page and ANNEXURE A.

INSTRUCTIONS AND INFORMATION:

1. This question paper consists of FOUR questions. Answer ALL the questions.
2. Number the questions correctly according to the numbering system used in this question paper.
3. Use **ANNEXURE A** to answer **QUESTION 2.2**.
4. Start EACH question on a NEW page.
5. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
6. Show ALL calculations clearly.
7. Round ALL the final answers appropriately according to the context, unless stated otherwise.
8. Indicate units of measurement, where applicable.
9. Maps and diagrams are NOT necessary drawn to scale, unless stated otherwise.
10. Write neatly and legibly.

QUESTION 1

1.1

TABLE 1 below gives definitions of terminology used in Mathematical Literacy.

TABLE 1: DEFINITIONS OF TERMINOLOGY USED IN MATHEMATICAL LITERACY

A	The percentage rate of interest that will be charged on your loan amount.
B	A record of income and expenditure.
C	Data value that lies an abnormal distance from the other data values in the data set.
D	The amount an individual "takes home" after deductions are made.
E	Data that can have only certain values (quantities that can be counted, usually whole numbers.
F	Information, series of observations, measurements, facts; collection and recording of information for statistical investigation.
G	Identification of the type of data.
H	Interest charged on amount due, inclusive of interest charges to date.
J	The total amount of all an individual's income before deductions.
K	A plan of how to spend money. An estimate of income and expenditure.

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Use TABLE 1 above and match the definitions with the terminology below. Write only the letter next to the question numbers (**e.g. 1.1.2 M**)

1.1.1 Budget (2)

1.1.2 Outlier (2)

1.1.3 Interest rate (2)

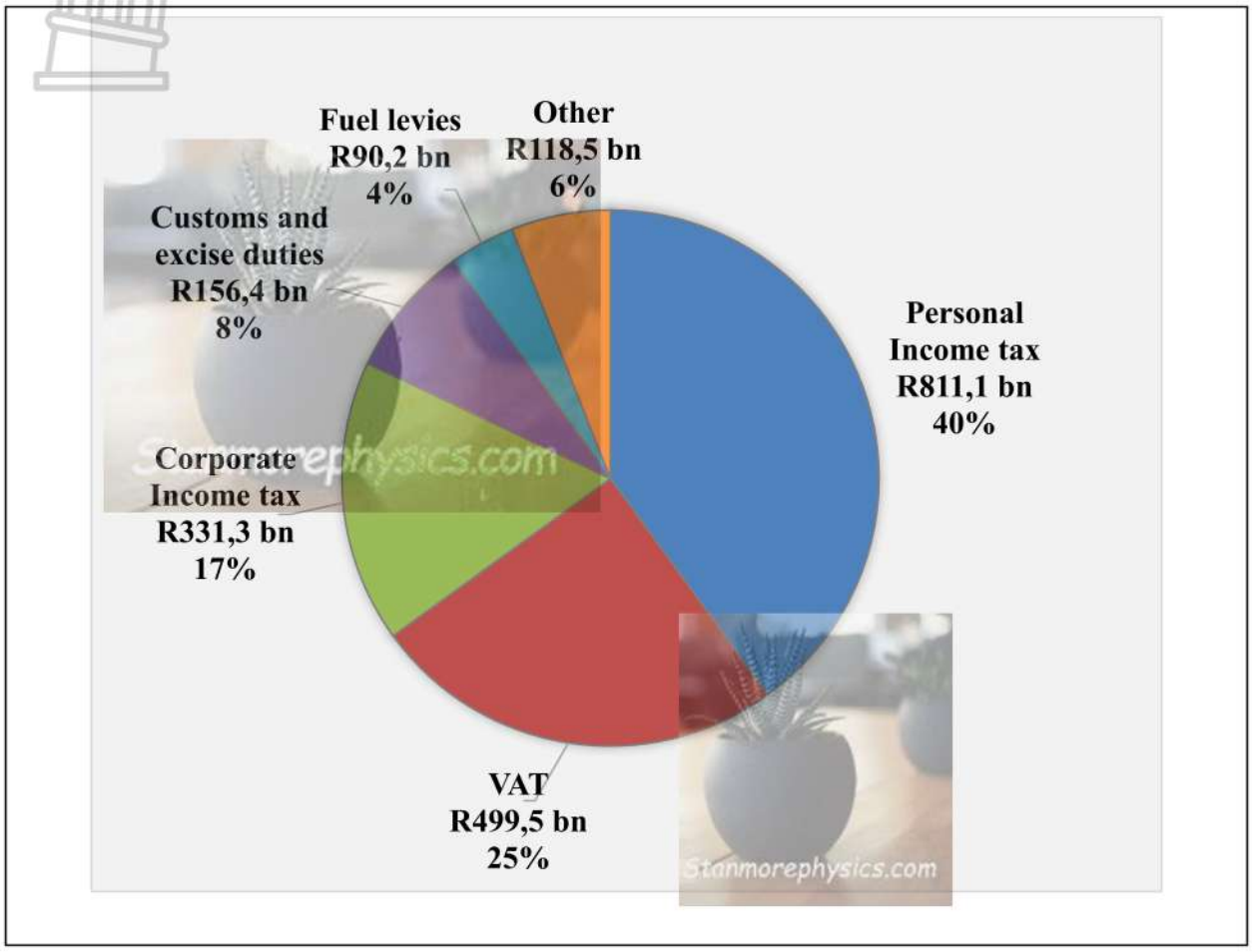
1,1.4 Gross Salary (2)

1.1.5 Data (2)

1.2

The South African government spends billions of rands every year to provide services to its citizens. The government's main source of income is Tax Revenue. The graph below shows the 2025/26 Tax Revenue in billions of rands.

TAX REVENUE 2025/26



Use the information above to answer the questions that follow.

1.2.1 Identify the type of graph shown above. (2)

1.2.2 Write down the item that generated the second highest tax revenue. (2)

1.2.3 Calculate the total amount received from Tax Revenue in 2025/26. (3)

1.2.4 Write down the item that generated half the income received from Customs and excise duties in terms of percentages. (2)

1.2.5 Determine the difference in tax revenue received from Personal income tax and corporate income tax. (2)
[21]

QUESTION 2

2.1

Genelle wants to open a new account. She compares transactional fees for two banks she found on the internet, as shown in TABLE 2 below.

TABLE 2: TRANSACTIONAL FEES FOR TWO BANKS

TRANSACTION TYPE	BANK FEES	
	NEDBANK (Pay-as-you-use)	CAPITEC (Global One)
Deposits (ATM)	R2,00 per R100 or part thereof	R1,40 per R100
Deposits (Branch)	R100 + R2,75 per R100 or part thereof	R15,00 per R100
Cash Withdrawals (own ATM)	R12,00 per R1 000 or part thereof	R10,00 per R1 000 or part thereof
Cash Withdrawals (other ATM)	R12,00 + R2,75 per R100 or part thereof	R10,00 per R1 000 or part thereof
Cash Withdrawals (Branch)	R100 + R2,75 per R100 or part thereof	N/A
Debit order (Internal & External)	R4,00	R3,00
Send cash (Up to R3 000)	R10,00	R2,00
Send cash (Over R3 000)	R50,00	R2,00
Prepaid top-up (Own ATM)	R1,50	R0,50
Prepaid top-up (Other ATM)	R11,00	R10,00

[Adapted from Nedbank.co.za and capitc.co.za]

Use TABLE 2 and the information above to answer questions that follow.

2.1.1 Write down the transaction fee for a prepaid top-up at Nedbank if another bank ATM is used. (2)

2.1.2 Genelle had the following monthly transactions on her bank statement:

- One cash withdrawal of R2 500 at own bank ATM.
- Two cash withdrawals of R 950 at another bank ATM.
- One send cash transaction of R1 000 to her grandchild.

Calculate the banking fees charged by both banks for all the transactions. (8)

2.1.3 Give ONE reason why banks charge more for branch deposits than ATM deposits. (2)

2.2

Genelle who is 66 years old, earns an annual income of R0,671 872 million for the 2026/2027 tax year. She contributes R50 390,40 per year towards pension. She is also a member of a medical aid fund, contributing for herself and two grandchildren. She receives no bonus.

TABLE 3 on ANNEXURE A shows the personal income tax rates, tax rebates, tax thresholds, Monthly medical tax credits and monthly tax deductions for 2026/2027.

Use ANNEXURE A and the information above to answer questions that follow.

2.2.1 Write R0,671 872 million in thousands. (2)

2.2.2 Express the pension fund contribution as a percentage of the annual income. (3)

2.2.3 Calculate Genelle's annual taxable income. (2)

2.2.4 Calculate the total annual medical credits she qualifies for. (5)

2.2.5 Show that the tax threshold for age 65 to age 74 in the table is CORRECT. (5)

2.2.6 Genelle stated that she is overpaying tax in the 2026/2027 tax year.

Verify, showing ALL calculations, whether her statement is valid. (9)

[38]

QUESTION 3

3.1

The incomplete frequency table below shows the marks of 73 learners obtained in a Life Sciences test.

FREQUENCY TABLE OF THE LIFE SCIENCES MARKS

CLASS INTERVAL	TALLIES	FREQUENCY	CUMULATIVE FREQUENCY
90 – 100		0	0
80 – 89	𝍸	4	4
70 – 79	𝍸 |	6	10
60 – 69	𝍸 𝍸 |||	13	23
50 – 59	……..	……..	31
40 – 49	𝍸 𝍸 𝍸 |	16	……
30 – 39	𝍸 𝍸 𝍸 |||	18	65
20 – 29	𝍸	4	69
10 – 19	|||	3	72
0 – 9	|	1	73

****

Use the frequency table above to answer the questions that follow.

3.1.1 Complete the tally for the 50 – 59% class interval. (2)

3.1.2 Write down the frequency for the 50 – 59% class interval. (2)

3.1.3 Calculate the cumulative frequency for the 40 – 49 % class interval. (2)

3.1.4 Write down the modal class interval. (2)

3.1.5 Give the type of graph that is the most suitable to represent the data given above. (2)

3.2

South African citizens are required to register to vote in elections which are held every five years.

TABLE 3A below shows the number of voters recorded on the voters' roll in March 2024, per age group and gender, while TABLE 3B shows the number of voters per province, with some data omitted.

TABLE 3A: NUMBER OF VOTERS PER AGE GROUP AND GENDER

AGE GROUP	NUMBER OF VOTERS	
	MALE	FEMALE
18 – 19	250 368	326 984
20 – 29	2 007 071	2 453 269
30 – 39	3 158 641	3 658 842
40 – 49	2 842 251	3 128 444
50 – 59	2 048 407	2 494 842
60 – 69	1 309 280	1 793 594
70 – 79	576 640	936 468
80 +	217 233	521 486
TOTAL	**12 409 891**	**15 313 929**

TABLE 3B: NUMBER OF VOTERS PER PROVINCE

PROVINCE	NUMBER OF VOTERS
Eastern Cape	3 439 325
Free State	1 456 935
Gauteng	**K**
KwaZulu- Natal	5 738 272
Limpopo	2 779 668
Mpumalanga	2 025 074
Northern Cape	656 831
North West	1 768 580
Western Cape	3 317 102

[Adapted from https//www.elections.org.za]

Use the information above to answer the questions that follow.

3.2.1 Determine, as a percentage, the probability of randomly selecting a male voter from the total number of voters. (5)

3.2.2 The mean for the number of voters per province is 3 080 424,4.

Calculate the missing value, K the number of voters for Gauteng. (4)

3.2.3 Describe the trend in the number of recorded female voters regarding the different age groups. (2)

[21]

QUESTION 4

4.1

Brazil has trade relationships with several countries as shown in TABLE 4 below.

TABLE 4: THE VALUE (IN BILLIONS OF US$) OF IMPORTS AND EXPORTS FOR BRAZIL WITH SIX COUNTRIES

COUNTRY	IMPORTS (BILLIONS OF US$	EXPORTS (BILLIONS OF US$)
China	63,6	94,4
United States of America	40,7	40,9
Germany	14,79	5,85
Argentina	15,3	13,78
Japan	5,43	5,58
South Korea	5,16	5,50

TABLE 5 below shows the exchange rates on 08 February 2026

TABLE 5: EXCHANG RATES ON 08 FEBRUARY 2026

CURRENCY	EXCHANGE RATES
US dollar (US$) to Brazilian real (BRL)	US$ 1 = BRL 5,1215
Brazilian real (BRL) to South African rand (ZAR)	1 BRL = R3,0726
Euro (€) to Brazilian real (BRL)	1€ = BRL 6,1698

[Adapted from https//www.xe.com]

Use TABLE 4 and TABLE 5 above to answer the questions that follow.

4.1.1 Identify the weakest currency against the Brazilian real. (2)

4.1.2 State the country with the smallest range between the imports and exports to Brazil. (2)

4.1.3 Calculate the exchange rate between the euro and the South African rand in the form €1 = R……. (3)

4.1.4 Agustin, an Argentinian citizen, stated that the difference between the United States imports and exports to Brazil is less than 200 million euros.

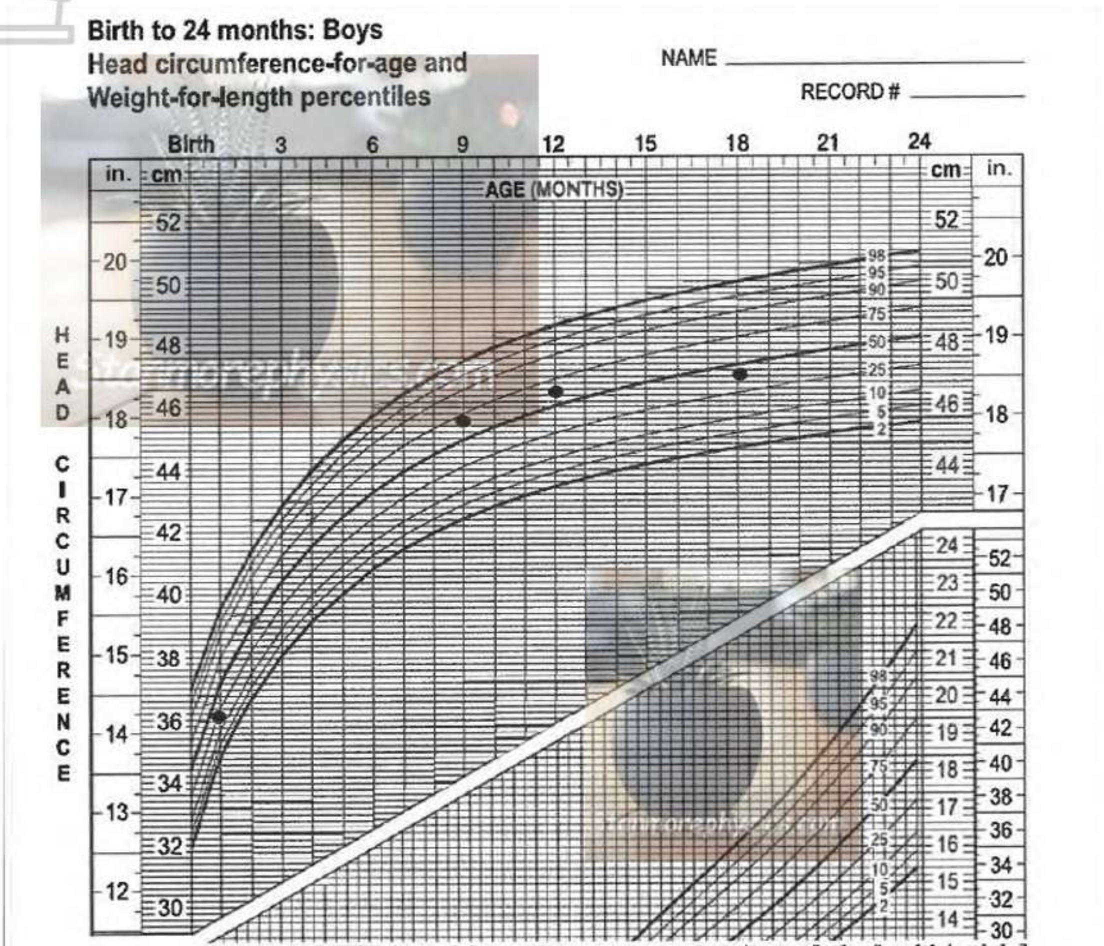
Verify, showing ALL calculations, whether his statement is VALID. (5)

4.2

Shown below is a growth chart for boys, from birth to 24 months. Also shown on this chart is the head circumference-for-age and part of the weight-for-length percentiles.

The measurements for a boy at 1, 9, 12 and 18 months have been plotted on the chart by a nurse at the clinic.

GROWTH CHART FOR BOYS



[Adapted from www.pampers.com/en-us/baby/health/article]

Use the growth chart above to answer the questions that follow.

4.2.1 Write down, in inches, the measurement of the boy at 9 months. (2)

4.2.2 Identify the month(s) in which the boy was above the 25th percentile. (3)

4.2.3 Another boy of the same age has a head circumference of 48 cm at 18 months.

Estimate the percentile for this boy, and state whether the boy falls in a higher or lower percentile than the boy whose details have been plotted on the growth chart. (3)

[20]

TOTAL MARKS: 100

ANNEXURE A

QUESTION 2.2

TABLE 3: PERSONAL INCOME TAX RATES, TAX REBATES, TAX THRESHOLDS MONTHLY TAX DEDUCTIONS FOR 2026/2027

TAX RATES 2026/2027	
TAXABLE INCOME (R)	**RATES OF TAX (R)**
R1 – R245 100	18% of taxable income
R245 101 – R383 100	44 118 + 26% of taxable income above 245 100
R383 101 – R 530 200	79 998 + 31% of taxable income above 383 100
R530 201 – R 695 800	125 599 + 36% of taxable income above 530 200
R695 801 – R 887 000	185 215 + 39% of taxable income above 695 800
R887 001 – R1 878 600	259 783 + 41% of taxable income above 887 000
R1 878 601 and above	666 339 + 45% of taxable income above 1 878 600

TAX REBATES 2026/2027 and 2025/2026		
AGE	**2026/2027**	**2025/2026**
Primary (below 65)	R17 820	R17 235
Secondary (65and older)	R9 765	R9 444
Tertiary (75 and older)	R3 249	R3 145

TAX THRESHOLD 2026/2027 and 2025/2026		
AGE	**2026/2027**	**2025/2026**
Under 65	R99 000	R95 750
65 to age 74	R153 250	R148 217
75 and older	R171 300	R165 689

MONTHLY MEDICAL TAX CREDITS 2026/2027 and 2025/2026		
	2026/2027	**2025/2026**
Primary/Main Member	R376	R364
First dependent	R376	R364
Additional dependents	R254	R246

MONTHLY TAX DEDUCTION TABLE			
Remuneration	**Under 65**	**65 to age 74**	**0ver 75**
R55 749 – R55 899	R13 172	R12 358	R12 088
R55 900 – R56 050	R13 227	R12 413	R12 142
R56 051 – R56 201	R13 281	R12 467	R12 196

[Adapted from www.sars.gov.za]

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TERM 1 TEST 1

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MARCH 2026

MARKING GUIDELINES

MARKS/*PUNTE*: 100

Symbol/*Kode*	Explanation/*Verduideliking*
M	Method/*Metode*
MA	Method with accuracy/*Metode met akkuraatheid*
MCA	Method with consistent accuracy/*Metode met volgehoue akkuraatheid*
CA	Consistent accuracy/*Volgehoue akkuraatheid*
A	Accuracy/*Akkuraatheid*
C	Conversion/*Herleiding*
S	Simplification/*Vereenvoudiging*
RT	Reading from a table/graph/document/diagram/*Lees vanaf tabel/grafiek/dokument/diagram*
SF	Correct substitution in a formula/*Korrekte vervanging in 'n formule*
O	Opinion/Explanation/*Opinie/Verduideliking*
P	Penalty, e.g. for no units, incorrect rounding off, etc./*Penalisasie, bv. vir geen eenhede, verkeerde afronding, ens.*
NPR	No penalty for correct rounding/*Geen penalisasie vir korrekte afronding nie*
NPU	No penalty for omitting unit, but wrong unit is penalised/*Geen penalisasie indien die eenheid uitgelos is, maar wel indien 'n verkeerde eenheid gebruik word.*
AO	Answer only/*Slegs antwoord*

These marking guidelines consist of 07 pages. ***Hierdie nasienriglyne bestaan uit 07 bladsye***

QUESTION/*VRAAG* 1 [21MARKS/*PUNTE*]			
Q/*V*	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T&L**
1.1.1	K ✓✓A	2A correct definition (2)	F L1
1.1.2	C ✓✓A	2A correct definition (2)	D L1
1.1.3	A ✓✓A	2A correct definition (2)	F L1
1.1.4	J ✓✓A	2A correct definition (2)	F L1
1.1.5	F ✓✓A	2A correct definition (2)	D L1
1.2			
1.2.1	Pie Chart ✓✓RT	2RT correct graph (2)	D L1
1.2.2	VAT ✓✓RT	2RT correct item (2)	D L1
1.2.3	Total amount received ✓RT = (R811,1 + R499,5 + R331,3 + R156,4 + R90,2 + R118,5) bn✓MA = R2 007 bn✓CA	1RT all correct amounts 1MA adding correct amounts 1CA simplification. **CA if only one amount is missing.** (3)	F L1
1.2.4	Fuel levies✓✓RT	2RT correct item	D L1
1.2.5	Difference = R811,1 bn – R331,3 bn ✓MA = R479,8 bn ✓A	1MA subtracting correct amounts 1A simplification (2)	F L1
		[21]	

QUESTION/*VRAAG* 2 [38MARKS/*PUNTE*]			
Q/*V*	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T&L**
2.1.1	R11,00 ✓✓A	2A correct fee (2)	F L1
2.1.2	Banking fees at Nedbank: ✓A ✓SF = [R12,00 × 3] + [R12,00+ R2,75 × 10] × 2 + R10,00 ✓A = R36,00 + R79,00 +R10,00 = R125,00 ✓CA Banking fees at Capitec: ✓A ✓A = [R10,00 × 3] + [R10,00 ×1] + R2,00 ✓A = R30,00 + R10,00 + R2,00 = R42,00 ✓CA	1A cash withdrawal own ATM 1SF correct formula 1A cash send cost 1CA simplification 1A cash withdrawal own ATM 1A cash withdrawal another ATM 1A cash send cost 1CA simplification (8)	F L3
2.1.3	Banks are discouraging clients from going to the branch to reduce the number of people visiting the bank. ✓✓A **OR** Banks must pay employees working in the bank. ✓✓A **OR** To reduce the wage bill. ✓✓A	2A explanation (2)	F L4
2.2			
2.2.1	R671 872 ✓✓A	2A correct answer (2)	F L1
2.2.2	% Pension fund contribution = $\frac{R50\ 390{,}40\ \checkmark RT}{R671\ 872\ \checkmark MCA} \times 100\%$ = 7,5%✓CA	**CA from 2.2.1** 1RT R50 390,40 1MCA dividing by R671 872 1CA simplification **AO** (3)	F L2
2.2.3	Taxable income = R671 872 – R50 390,40 ✓MCA = R621 481,60 ✓A	**CA from 2.2.1** 1MA subtracting correct values 1A simplification (2)	F L2

2.2.4	Annual medical tax credits ✓MA ✓RT = 2 × R376,00 + R254,00 ✓RT = R1 006,00 × 12 ✓MA = R12 072,00✓CA **OR** Annual medical tax credits ✓RT ✓MA = R376,00 + R376,00 +R254,0✓RT = R1 006,00 × 12✓MA = R12 072,00✓CA	1MA multiplying by 2 1RT 376 1RT 254 1MA multiplying by 12 1CA simplification **OR** 1RT 376 1MA adding amounts 1RT 254 1MA multiplying by 12 1CA simplification (5)	F L3
2.2.5	Tax threshold for age 65 to age 74 ✓RT ✓RT = R17 820 + R9 765 ✓MA = R27 585 ✓MCA = R27 585 ÷ 18%✓MCA = R153 250 **OR** = R153 250 × 18% ✓MA = R27 585✓MCA ✓RT ✓RT = R27 585 – (R17 820 + R9 765) ✓MA =R0	1RT R17 820 1RT R9 765 1MA adding correct rebates 1MCA simplification 1MCA dividing by 18% **OR** 1MA calculating 18% 1MCA simplification 1RT R17 820 1RT R9 765 1MA subtracting rebates (5)	F L3
2.2.6	Annual tax payable before rebates = R125 599 + 36% (R621 481,60 – R530 200) ✓MCA = R125 599 + 36% × R91 281,60 = R125 599 + R32 861,38 =R158 460,38✓CA Annual tax payable after rebates ✓RT ✓RT = R158 460,38 – R17 820 – R9 765 – R12 072✓MCA = R118 803,38✓CA Monthly tax payable = $\frac{R118\,803,38}{12}$ = R9 900,28✓CA Genelle's Monthly income = R671872 ÷12 = R55 989,33 Monthly tax according to the deduction table = R12 413✓RT Genelle's statement is VALID. ✓O	**CA from 2.2.3** 1MCA correct tax bracket 1CA simplification 1 RT correct rebate 1RT correct rebate 1MCA subtracting MTC 1CA simplification 1CA monthly tax 1RT R12 413 1O conclusion (9)	F L4
		[38]	

QUESTION 3 [21MARKS]			
Ques	**Solution**	**Explanation**	**Level**
3.1.1	𝍸 ||| ✓✓A	2A correct tally (2)	D L1
3.1.2	8 ✓✓A	**CA from 3.1.1** 2A correct frequency (2)	D L1
3.1.3	✓RT = 31 + 16 = 47✓A **OR** ✓RT 0 + 4+ 6 + 13 + 8 + 16 = 47 ✓A	1RT correct values 1A simplification **OR** 1RT correct values 1A simplification (2)	D L1
3.1.4	30 - 39✓✓RT	2RT correct modal class (2)	D L2
3.1.5	Histogram ✓✓A	2A correct graph (2)	D L2
3.2			
3.2.1	Total number = 12 409 891 + 15 313 929 ✓MA = 27 723 820 ✓A ✓RT Probability = $\frac{12\ 409\ 891}{27\ 723\ 820\ \checkmark\ MCA} \times 100\%$ = 44,76% ✓CA	1MA adding correct values 1A correct total 1RT correct numerator (12 409 891) 1MCA concept of probability 1CA simplification **Accept 44,8% and 45%** (5)	D L2
3.2.2	✓MA Mean = $\frac{21\ 181\ 787+K}{9}$ 3 080 424,4 = $\frac{21\ 181\ 787+K}{9}$ ✓MA 21 181 787 + K = 27 723 819,6 K = 6 542 032,6✓CA K = 6 542 033 ✓R	1MA adding all values 1MA concept of mean 1CA simplification 1R rounding (4)	D L3

3.2.3	From 20 – 39 years the number of registered female voters increases. ✓O From 40 years and above the number of registered female voters decreases. ✓O	1O age and voters increase 1O age and voters decrease (2)	D L4
		[21]	

QUESTION 4 [20 MARKS]			
Ques	**Solution**	**Explanation**	**Level**
4.1.1	South African Rand ✓✓RT	2RT correct currency (2)	F L2
4.1.2	Japan✓✓RT	2RT correct country (2)	F L2
4.1.3	€ 1 = BRL 6,1698 ✓RT = 6,1698 × 3,0726 ✓MCA = R18,9573 ✓CA	1RT correct rate 1MCA multiplying correct values 1CA simplification **Accept R18,957/R18,96 AO** (3)	F L2
4.1.4	Difference (in US$) = 40,9 billion – 40,7 billion ✓MA = 0,2 billion ✓A Difference (in BRL) = 0,2 billion × 5,1215 = 1,0243 billion✓CA Difference (in €) = 1,0243 ÷ 6,1698 = 0,1660183474 billion = 166,0183474 million ✓CA His statement is VALID✓O	1MA difference in US$ 1A simplification 1CA simplification 1CA answer in millions 1O conclusion **NPR** (5)	F L4
4.2.1	17,9 inches ✓✓RT	2RT reading from the chart. **Accept 17,8 – 18** (2)	D L2
4.2.2	9 months✓RT 12 months ✓RT 18 months✓RT	1RT correct ages 1RT correct age 1RT correct age (3)	D L2
4.2.3	The boy is between the 50th and 75th percentiles✓✓RT The boy fell in a higher percentile. ✓A	2RT between 50th and 75th percentile. 1A conclusion (3)	D L4
		[20]	
	TOTAL MARKS: 100		