Province of the EASTERN CAPE EDUCATION

OR TAMBO INLAND DISTRICT

NATIONAL SENIOR CERTIFICATE

GRADE 11

MATHEMATICAL LITERACY

CONTROLLED TEST

TERM 3 – SEPTEMBER 2023

MARKS: 50

DURATION: 1 HOUR

This paper consists of 8 pages 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. Number the questions correctly according to the numbering system used in this question paper.
3. Show ALL calculations clearly.
4. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise
5. Diagrams are NOT drawn to scale, unless otherwise stated.
6. Round off ALL final answers appropriately according to the given context, unless stated otherwise.
7. Start EACH question on a NEW page.
8. Indicate units of measurement, where applicable
9. Write neatly and legibly.

QUESTION 1

1.1 The South African National Budget highlights the Revenue (Income) and Government Spending (Expenses) for the year 2021/2022.

TABLE 1 : WHERE THE MONEY COMES FROM AND HOW WILL IT BE SPENT IN 2021/2022

GOVERNMENT SOURCES OF INCOME IN 2021/22 (R billion)		
Taxes Borrowing Non-Tax Revenue	**1 365.1** **482. 6** **32. 5**	**72.6%** **25.7%** **1.7%**
TOTAL	**1 880,2**	**100,0%**
[redacted]		
Social development	**335. 3**	**16.6%**
Basic education	**272. 3**	**13.5%**
Debt-service cost	**269.7**	**13.4%**
Health	**248.8**	**A**
Community development	**218. 8**	**10.8%**
Peace and security	**208.6**	**10.3%**
Economic development	**207.5**	**10.3%**
Other	**138,7**	**6.9%**
Post-school education and training	**119.6**	**5.9%**
TOTAL	**2 019.3**	**100.0%**

Source: www. treasury. gov. za

Use the information above to answer the questions that follow.

1.1.1 Explain the term "surplus" in this context . (2)

1.1.2 Calculate the value of **A** in the table of Government expenses. (2)

1.1.3 Determine balance of the National Budget after all the expenses have been paid. (2)

1.1.4 Write the amount received from Non-tax Revenue as a number in millions. (2)

1.2 Mrs Lediga from Meso High School decided to sell sandwiches during lunch breaks as a fundraising project. A sandwich is a food item consisting of two slices of bread with a filling between them, eaten as a light meal. The cost price of making one sandwich is R8.50 and the daily fixed cost is R70.00. The intended profit margin is 35%.

TABLE 2: INCOME RECEIVED FROM THE SALE OF SANDWICHES

Number of Sandwiches (n)	0	10	20	30	70	100
Income in Rand (R)	0	115	230	345	805	1 150

TABLE 3: COST OF SANDWICHES

Number of Sandwiches (n)	0	10	20	30	**p**	100
Cost in Rand (R)	70	155	240	325	750	920

Mrs Lediga used the following formula to calculate the total cost of the Sandwiches:

Cost = R70 + R8.50 x n , where n is the number of sandwiches

Use the information above to answer the questions that follow.

1.2.1 Table 2 shows the income received from the sale of sandwiches. Write down an equation that can be used to calculate the income. (2)

1.2.2 Explain what is meant by the term “Break - even point” in the given context. (2)

1.2.3 Calculate the value of **p** in Table 3, where p is the number of sandwiches. (3)

1.2.4 Verify that the selling price of ONE sandwich (to the nearest 10 cents), will give Mrs Lediga’s intended profit margin of 35%. (4)

[19]

QUESTION 2

2.1 A house in East London was for sale at a price of R2 578 799, 00. A deposit of R386 819, 85 was required and the balance payable in equal monthly instalments for 20 years.

2.1.1 Write the sale price of the house in words. (2)

2.1.2 Express the deposit amount as a percentage of the sale price. (2)

2.1.3 Ben decided to bank the deposit amount at **QR BANK**. Use the information below to calculate the transaction cost of the deposit.

Transaction	Rate
Charge for deposits	R5,75 + R1,10 per **R100** or part thereof

(2)

2.2 Phila is building a 4 – roomed house for his parents. The house has reached roof level, he needs to buy tiles. Build-it has a special on roof tiles.

He needs a loan of R5 000 to buy the tiles. Two options are available to him.

OPTION 1: ABC Bank can offer him a loan of R5 000 at 7,8% per annum. Interest compound yearly to be repaid over 24 months.

OPTION 2: His friend can offer him a loan of R5 000 at 9,5% per annum simple interest to be paid back in full at the end of 2 years.

2.2.1 Calculate, **MANUALLY**, the total amount he will pay back to the bank at the end of 24 months for option 1. (5)

2.2.2 Use your answer for **2.2.1** and total amount for option 2 to help Musa choose the best option. (5)

2.2.3 The projected inflation rate for 2022 was 4,3%. If one tile costs R6,29 in 2022, calculate the cost of one tile back in 2021. (2)

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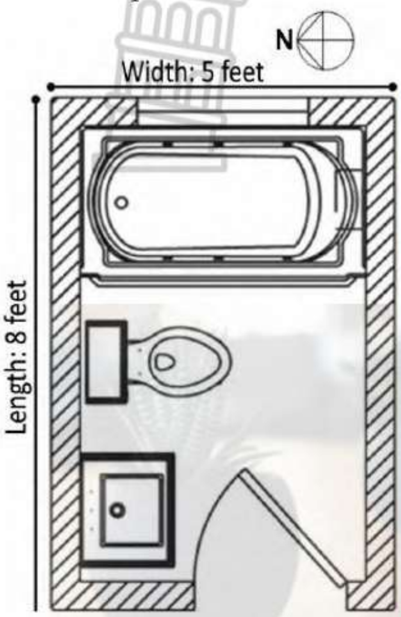
QUESTION 3

Jack and Gill plan to renovate their bathroom using the options illustrated below:



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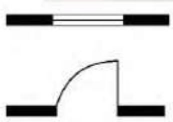

Window in wall

Door, indicating which way it opens

3.1 State the compass direction of the window. (2)

3.2 Calculate the area (in cm^2) of the inside floor of the bathroom, if **1 foot = 30,48 cm** and the thickness (width) of the wall is 11 cm.

You may use the following formula:

Area = Length x Width (6)

3.3 Determine the probability, as a fraction, of them choosing Tile A and Tap Z. (2)

3.4 Determine by measuring the northern side of the bathroom, the scale used to draw the floor plan in the form 1: … …, rounded to the nearest whole number. **NB : 1 foot = 30,48 cm**. (3)

[13]

Total marks [50]