

VHEMBE EAST DISTRICT

GRADE 12

MATHEMATICAL LITERACY

CONTROLLED TEST

TERM 1

07 APRIL 2021

MARKS: 100 MARKS

TIME: 2 Hours

This Test consist of 6 pages including the cover page and 3 Annexures INSTRUCTIONS AND INFORMATION

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

QUESTION 1**[23]**

1.1.

TABLE 1: Mr Rananga, his wife and two children who were 18 years and 21 years of age, took a holiday trip to Durban by flight from OR Tambo International Airport (Johannesburg) in December 2018. He made the bookings on the 14th April 2018 so as to avoid price increase towards the beginning of December holidays.

FLIGHT SCHEDULE

Departure	Johannesburg - Durban		
	Monday 18 December 2018	Time 13:35 – 14:45	Flight JE253
Return	Durban - Johannesburg		
	Saturday 23 December 2018	Time 11:40 – 12:45	Flight JE258

BOOKING DETAILS

Reference Number: PNBDRG

Invoice Number: 25807314

VAT Number: 4350232049

Description	Exclusive	VAT	Amount
Base Fare	A	R563.87	R4 322.99
Civil Aviation Tax	R161.84	R0.00	R161.84
Passenger Service Charge	R575.44	R86.32	R661.76
ACS Charges	R161.42	R24.21	R185.63
Fees (Surcharge on EDCON)	R422.98	R0.00	R422.98
VAT included @ 15%			B
Total paid			C

Source: Adapted from personal invoice

Use TABLE 1 to answer the questions that follow.

1.1.1. What does the acronym VAT stand for?

(2) 1.1.2.

State the VAT number of the booking.

(2) 1.1.3. Calculate

the values of A, B, and C

(6)

1.1.4. Identify the item(s) which is (are) VAT exempted

(4)

1.1.5. Calculate the charge per person for a single trip.

(4)

1.2.

Mr Rananga and his family were accommodated at Durban Hotel and Conference Centre from the 18th December 2018 to 23rd December 2018. They have booked 2 Double Bed Rooms at R750.00 per room and breakfast at R120.00 per person per day for a total amount of R9 900.00.

(NB: All the amounts include VAT.)

Use the information above to answer the question that follow.

- 1.2.1. Determine the number of nights spent in Durban. (2)
- 1.2.2. Calculate the total amount of money spent on accommodation. (3)

QUESTION 2

[19]

2.1.

ANNEXURE A shows an adapted municipal account statement (Property rates and services account) of Mr Fortune.

Use ANNEXURE A to answer the questions that follow.

- 2.1.1. Write down the valuation date (month and year) of Mr Fortune's property. (2)
- 2.1.2. Name the municipal services that Mr Fortune is charged for. (2)
- 2.1.3. Determine the end date of the reading period of this statement. (2)
- 2.1.4. Show how the daily average water consumption of 0,522kl was calculated. (2)
- 2.1.5. Name and explain which service on this statement is a variable expense. (3)
- 2.1.6. Determine the missing value:
- (a) A (2)
- (b) B (2)
- 2.1.7. Calculate the monthly sewerage rate (excluding 14% VAT) per square metre for this property. (2)
- 2.1.8. Write down the unpaid amount for December 2016. (2)

QUESTION 3

[24]

3.1. Gezani works as a building consultant who receives salary of R10 229.00 per month. UIF, medical aid and PAYE are deductions made from his salary every month. His payslip is shown below:

BULIMBU CONSTRUCTIONS	PAY DATE: 31 May 2019	NAME: R. Gezani	STAFF NUMBER: 981205345	DEPARTME NT: Building
ID NUMBER: 810428 0112 08 3	BIRTH DATE: 28-04-1981	JOB TITLE: Consultant	TAX REFERANCE NUMBER: 0735/078/25/3	
MARITAL STATUS: MARRIED	BANK ACCOUNT: 963 567 8972		BANK: CAPITEC	
SALARY	AMOUNT	DEDUCTIONS	AMOUNT	
BASIC SALARY	R10 229	PAYE on salary	R788.20	
		Pension	R767.19	
		Medical aid contribution	R560	
		UIF	R105.50	

GROSS SALARY	R10 229	TOTAL DEDUCTIONS	R.....
		NETT PAY DUE	R.....

3.1.1. What does UIF stand for? (2)

3.1.2. State one benefit for contributing to UIF. (2)

3.1.3. UIF amount was deducted from Gezani's salary. Through calculations, determine whether the deducted amount is correct or not. If not correct, how much should have been deducted and why? (4)

3.2. SARS has developed a Pocket Guide to provide the most important tax- and levy- related information. Below is the SARS Pocket Guide for individual and trusts for the assessment year ending 29 February 2019:

INCOME TAX: INDIVIDUAL AND TRUSTS Tax rates (year of assessment ending 29 February 2019)

Taxable Annual Income (R)	Rate of Tax (R)
0 - 150 000	18% of taxable income
150 001 - 235 000	27 000 + 25% of taxable income above 150 000
235 001 - 325 000	48 250 + 30% of taxable income above 235 000
325 001 - 455 000	72 250 + 35% of taxable income above 325 000
455 001 - 580 000	120 750 + 38% of taxable income above 455 000
580 001 and above	168 250 + 40% of taxable income above 580 000

Tax Rebates for individuals

Rebates	
Primary	R10 755
Secondary (persons 65 and older)	R6 012
Tertiary (person 75 and above)	R2 000

Tax Threshold for individuals

Age	Tax Threshold
Below age 65	R59 750
Age 65 to below 75	R93 150
Age 75 and older	R104 261

3.2.1. Gezani is a 37 year old man who earns R10 299 per month. Calculate the tax that Gezani has to pay. (5)

3.2.2. Convert R10 299 into Indian Rupee. (2)

N.B. 1 (one) Indian Rupee = R0,17

3.3.

ANNEXURE B shows an extra from Mr Kola's home loan statement in 2019

Use ANNEXURE B to answer the questions that follow.

3.3.1. Define the term “loan” according to the given context. (2)

3.3.2. Calculate the values of A and B (4)

3.3.3. Calculate the total amount of money he would have paid after 20 years if monthly repayment were to remain the same. (3)

QUESTION 4

[34]

4.1. Companies that specialise in hiring cars to tourists have different tariffs (rates and benefits to offer to the tourist. Below are examples of two car rentals. Mr Salojee, from India, is keen to visit our country. He is planning to drive an average of 100 kilometres per day. He looks at rates of the two car hiring companies.



The formula to determine the cost of World Car Rentals is $C = R6,50 \times n$, where C is cost and n is the number of kilometres. The table below shows the cost of the two options:

	Daily Rate	Daily rates plus km travelled					
		0km	10km	20km	30km	50km	80km
World car Rentals	R0	R65	R130	R195	A	R520	R650
Holiday Car Rentals	R165	R200	R235	R270	R340	R445	B

4.1.1. Calculate the value of A and B. (4)

4.1.2. Complete the Holiday Car rentals graph in the given Annexure C. (4)

4.1.3. Use the graphs to answer the following questions:

4.1.3.1. At what distance (number of kilometres) will the amount charged by each of the companies be the same? (2)

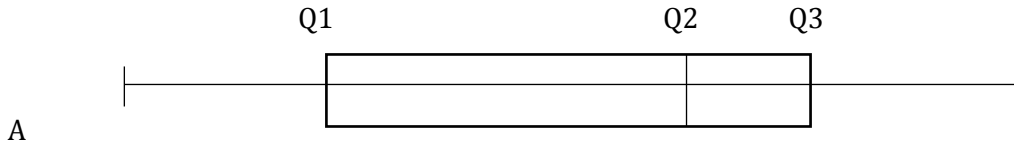
4.1.3.2. Mr Salojee only has R585 to spend on his last day. How far can he travel if he uses World Car Rentals? (2)

4.2.

These are the results for Mathematical Literacy test 1 (out of 100) for grade 12 learners at Tshivhase Secondary.

3 45 29 11 15 **B** 33 72 8 23 **B** 30 25 **B** 7 **A** **B**

NOTE: **B** represents the same mark for some learners and it is not the highest mark.



4.2.1. The range mark for the test is 70. Determine the value of A which is the minimum mark. (3)

4.2.2. The average mark is 23, determine the modal value. (4)

4.2.3. Arrange the data set in ascending order, and determine the values of Q1, Q2 and Q3 in the box-and-whisker diagram. (7)

4.2.4. Determine the mark that can be regarded as outlier in the set of data. Explain your answer. (3)

4.2.5. Determine the probability that a learner will be in the top 70%. Write your answer correct to two decimal places. (2)

4.2.6. Comment on the performance of this grade 12 class in the test. Motivate your answer. (3)

TOTAL: 100