PHOENIX CENTRAL CLUSTER

FINAL EXAMINATIONS – NOVEMBER 2019

MATHEMATICAL LITERACY   P1

GRADE: 10

EXAMINER   : MRS K. MOODLEY [EARLINGTON SEC]   **DURATION**   : 1½HOURS

MODERATOR : MRS R. CHETTY [AVONFORD SEC]   **MAXIMUM MARKS:**   75

INSTRUCTIONS AND INFORMATION:

1. This question paper consists of **THREE** questions over **SEVEN** pages.(incl annexure)
2. Answer ALL the questions.
3. Write neatly and legibly.
4. Number the answers correctly according to the numbering system used in the question paper.
5. Show all calculations.
6. Do not write in the margins of your answer booklet.
7. You may use a non-programmable calculator.
8. You may use appropriate mathematical instruments.
9. Round off your final numerical answer to a minimum of TWO decimal places, unless otherwise stated.
10. Answer question 3.2.6. on the ANNEXURE provided.

QUESTION ONE: [25 MARKS]

1.1. The RCL of Earlcroft High school had raised funds at their annual School's Sports Day which is took place in June 2019. The funds raised was used to revamp their Sports centre at the school.

The School governing Body purchased the following items from a local supermarket. The document below shows the items that were purchased to make hotdogs. They also sold cooldrinks at the event.

CHECK-SAVE SUPER STORES
PHOENIX PLAZA

TEL : 031 5071748
FAX : 031 5071293
E-MAIL: checksavesuper-store@webmail.com

23 dozen hot dog rolls @ R15,00 per dozen	**A**
10 kg Chicken viennas - (24 per kg) @ R45,00 per kg	R450,00
2 kg Soya hot dogs - (18 per kg) @ R30,00 per kg	**B**
1kg Canola margarine	R 30,00
4 litre Canola oil	R 80,00#
20 x 2 CocaCola soft drinks @ R22,50 per 2 litre	R450,00
4 kg Gas	R200,00#
20 packs paper cups (24 per pack) @ R6,00 per pack	R180,00
3 pack Serviettes (100 per pack) @ R25,00 per pack	R 75,00
5 litre Musto-tasty sauce	R100,00

Total	**C**
Cash tendered	**R2000,00**
Change	**D**

*Prices include VAT of 15%
zero-rated items

Cashier : Roshelle Govender

Time : 15.45   26/06/2019   Till no. 008   Slip No. 4567

1.1.1. Identify the financial document shown above. (2)

1.1.2. Calculate the missing values **A, B, C and D**. (4x2)= (8)

1.1.3. Calculate the cost of a single roll. (2)

1.1.4. A pack of serviettes was R20,00 in 2017. The price in June 2019 was R25,00.
Calculate the percentage increase in the price of the serviettes using the following formula:

$$\text{\%increase} = \frac{\text{New Price} - \text{Old Price}}{\text{Old Price}} \times 100$$ (3)

1.1.5. Name **ONE** perishable item from the list of items purchased. (2)

1.1.6. State **ONE** way that the store can be contacted if there is a query. (2)

1.1.7. Calculate the amount of VAT that was paid on the cookdrinks. (2)

1.1.8. Name **ONE** item that is VAT free. (2)

1.1.9. A cup of cool drink was sold for R5,00. If there are 8 cups in one 2 litre, calculate the profit made from one bottle of cool drink.

Profit = Selling price - Cost price (2)

[25]

QUESTION TWO: [24 MARKS]

2.1. The learners of Earlcroft High School want to raise funds to buy equipment for cricket. They decided to bake cakes and have a cake sale at school.
Study the recipe below, which was taken from the internet, and answer the questions that follow.

ROSE-WATER MERINGUE CAKE

- 12 Large eggs
- 800g Castor sugar
- 1½ Teaspoons Corn flour
- 1½ Teaspoons white spirit vinegar
- 2 Teaspoons rose-water
- 250ml whipped cream

Preheat the oven to 302°F

Bake for 1½ hours

Some useful conversions:

1 teaspoon = 5 ml

1 cup   = 250ml

$$^\circ C = (^\circ F - 32) \div 1,8$$

2.1.1. A large egg weighs an average of 51,5grams. How much will 12 eggs weigh? Write your answer in kg. (3)

2.1.2. How many ml is 2½ teaspoons? (2)

2.1.3. Convert 625ml to cups. (2)

2.1.4. The recipe is given in °F. Convert the oven temperature to degrees Celcius(°C) (2)

2.1.5. The pupils started baking at 11.35am. At what time will the cake be ready? Write your answer in digital format. (3)

2.1.6. Calculate how much of fresh cream, in litres, will be required to make four such cakes. (2)

2.2. The School Governing Body chose to have the sports at an athletics stadium close by. The lay-out of the stadium is given below. Study the lay-out and answer the questions based on it.
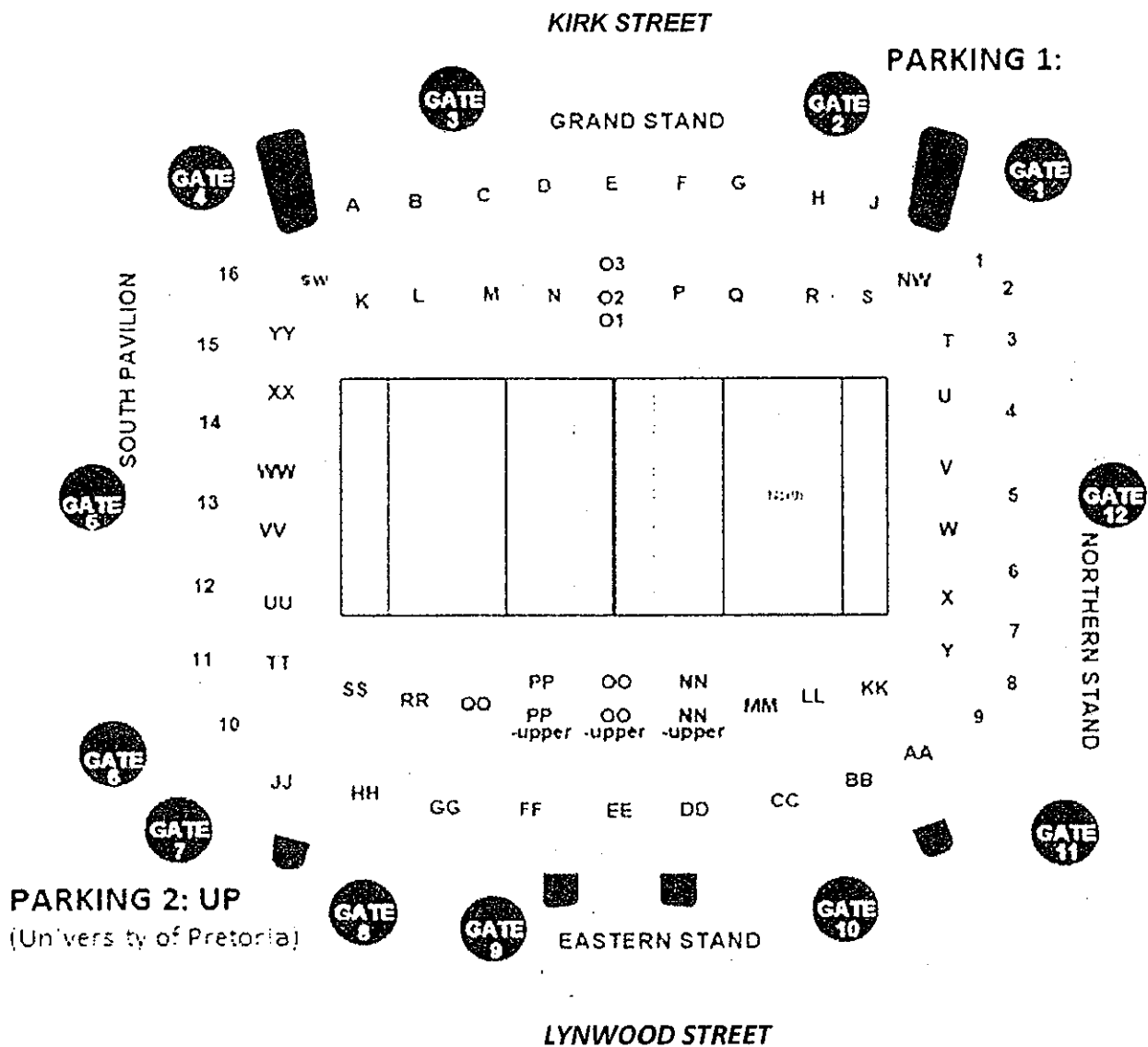
2.2.1.   How many gates does the stadium have? (2)

2.2.2.   Which gate is closest to:

2.2.2.1.   Grand stand block C. (2)
2.2.2.2.   Eastern stand block PP. (2)

2.2.3.   Andy has tickets for Block 00 and Graham has tickets for Block KK. Describe Graham's position in relation to Andy. (2)

2.2.4.   Graham's father dropped him off in the street closest to his seat. Name the street that Graham was dropped off at. (2)

[24]

QUESTION THREE:[26 MARKS]

3.1.   The grade 10 learners at Earlcroft Secondary school raised R3 800 at the cake sale. They want to invest the money and were given the following options:

OPTION ONE:

BANK A

5.5%p.a. simple interest

for 2 years

OPTION TWO:

BANK B

4.5%p.a. compounded annually over 2 years

3.1.1.   Calculate the total amount that the learners will have at the end of two years if they chose Option One. Show all calculations. (3)

3.1.2.   The following table represents the interest calculations for option two.

Year	Initial amount	Interest earned	Final amount
1	R3800	A	R3 971
2	R3 971	R178,695	B

Calculate the missing values **A** and **B** in the above table. (4)

3.1.3.   Which was a better option for investing the money? Give a reason for you answer. (2)

3.2. Mr Adam did a survey with the pupils in his class about which sport they enjoyed the most, from the four options given below.

- Netball **(N)**
- Volleyball **(V)**
- Soccer **(S)**
- Cricket **(C)**

He obtained the following results from his survey:

V	V	V	C	C
V	S	V	S	V
C	S	N	S	V
S	V	N	S	N
S	C	V	S	N
S	N	V	S	S

3.2.1. Complete the following Tally and Frequency table. Write down only the **letter** and the correct answer next to it.

Name of sport	Tally	Frequency
Netball	**(A)**	5
Volleyball	**(B)**	10
Soccer	ʰIJ ʰIJ I	**(C)**
Cricket	IIII	**(D)**

(4)

3.2.2. Identify the modal sport from the survey results. (2)

3.2.3. Calculate the number of learners that chose Volleyball, as a percentage of the total number of learners in Mr Adams class. (2)

3.2.4. Write down the number of learners that play Volleyball compared to the learners that play Cricket in ratio form. Simplify your answer. (2)

3.2.5. Write down the probability of a learner choosing soccer as a sport. Write your answer in decimal form. (2)

3.2.6. Draw a bar graph to represent the frequency of the sport in Mr Adam's class. Use the **ANNEXURE** provided to draw the graph. (5)
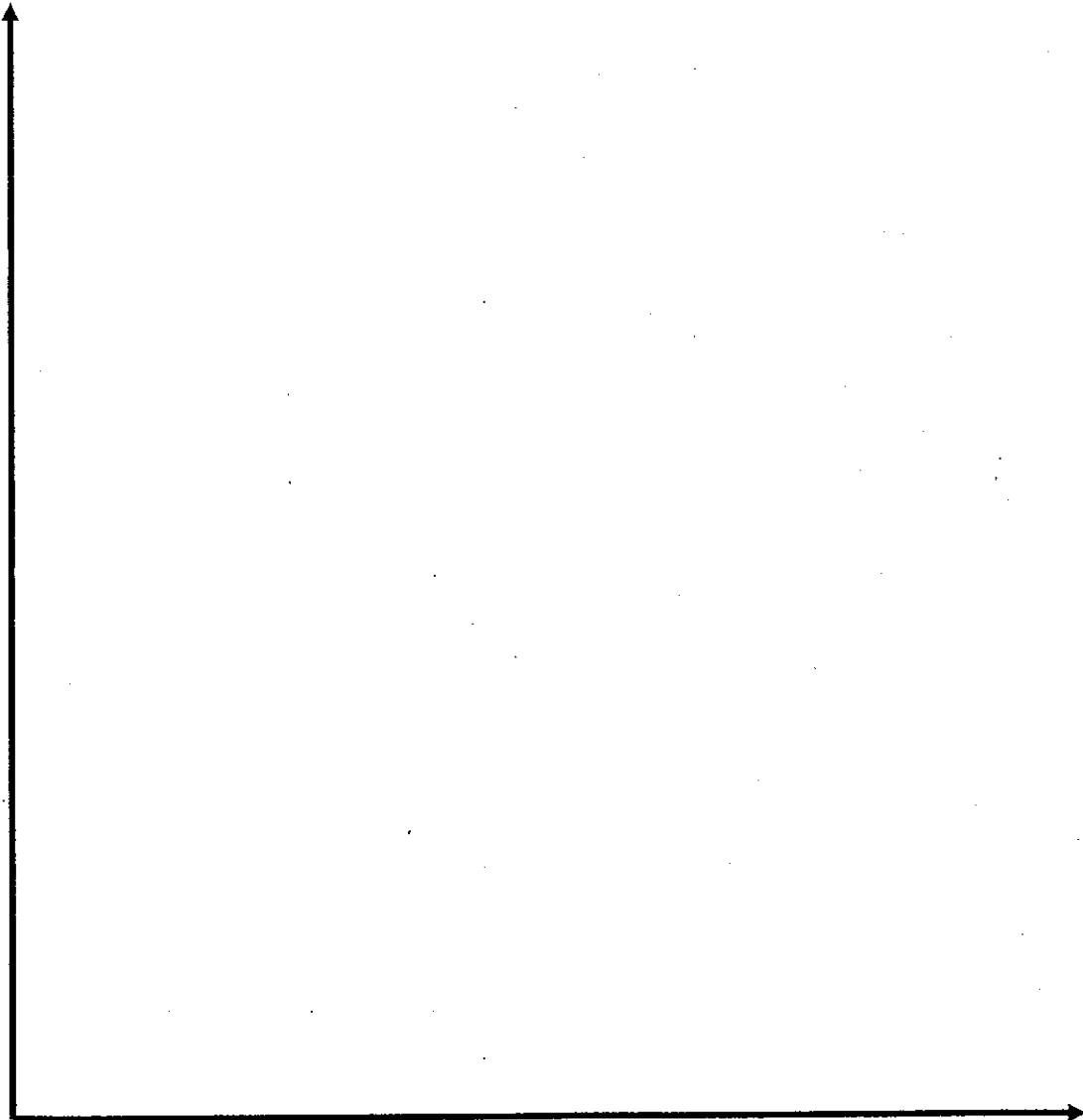
[17]

GRAND TOTAL: 75

ANNEXURE

QUESTION 3.2.6.

NOTE: REMOVE AND HAND IN WITH ANSWER BOOKLET

NAME OF LEARNER: _____

GRADE: _____

TITLE: _____

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MARKING GUIDELINE

Code	Explanation
A	Answer only
M	Method
CA	Accuracy
SF	Substitution into formula

QUESTION ONE [25 MARKS]

1.1.

1.1.1.	Cash sales slip√√ **A**	(2)	2 correct answer 2 **A**
1.1.2.	A = 23 x R15,00√ **M** = R345,00√ **A**	(2)	1 multiplying correct values 1 answer
	B = 2 x R30,00√ **M** = R60,00√ **A**	(2)	1 multiplying 1 answer

	C = R345 + R450 + R60 + R30 + R80 + R450
	    R200 + R180 + R75 + R100√ **CA**
	    = R1970,00 √ **CA**
		(2)	1 adding correct values
			1 answer

	D = R2000 - R1970√ **M** = R30,00√ **CA**	(2)	1 subtraction 1 answer
1.1.3.	One roll = R15,00 ÷ 12√ **M** = R1,25√ **A**	(2)	1 dividing by 12 1 answer
1.1.4.	% increase = $\frac{R25,00 - R20,00}{R20,00}$ x 100√ **SF** √ = 25%√ **A**	(3)	1 correct substitution 1 multiplying by 100 1 answer
1.1.5.	Rolls/chicken viennas/ soya hot dogs/ margarine/ sauce√ √ **A**	(2)	2 any **one** correct answer
1.1.6.	Telephone/ fax/ e-mail√√ **A**	(2)	2 any **one** correct answer
1.1.7.	VAT : R450,00 ÷ 1,15√ = R391,30 R450,00 – R391,30 = R 58,70√ **A**	(2)	1 dividinging by 1,15% 1 answer
1.1.8.	Oil/ gas√√ **A**	(2)	2 any **one** correct answer

1.1.9.	Profit = (8 x R5,00)√ – R22,50
	    = R40,00 - R22,50
	    = R17,50√ **A**
		(2)	1 correct multiplication
			1 answer

QUESTION TWO [24 MARKS]

2.1

2.1.1.	12 X 51,5√ = 618g √÷ 1000 = 0,618kg = <u>0,62kg</u>√ **A**		(3)	1 multiplying 1 correct answer 1 correct conversion
2.1.2.	2½ x 5ml√ = <u>12,5ml</u>√ **A**		(2)	1 multiplication by 5 1 answer
2.1.3.	1 cup = 250ml 625ml ÷ 250√ =<u>2,5 cups</u> **A**		(2)	1 dividing by 250 1 answer (NPR)
2.1.4.	ºC = (302 – 32) ÷ 1,8√ **SF** = 150ºC√ **A**		(2)	1 correct substitution 1 answer
2.1.5.	11 : 35 <u>+ 1 : 30</u>√ 12 :65√ **A** → <u>13:05</u>√		(3)	1 adding 1hr 30 min 1 correct answer 1 digital format
2.1.6.	4 x 250 =1000ml = 1000 ÷ 1000√ = 1 litre √ **A**		(2)	1 dividing by 1000 1 answer
			(14)	

2.2.

2.2.1.	12 gates√√ **A**	(2)	2 correct answer
2.2.2.	2.2.2.1. Gate 3√√ **A** 2.2.2.2. Gate 9√√ **A**	(2) (2)	2 correct answer 2 correct answer
2.2.3.	West/W√√ **A**	(2)	2 correct answer
2.2.4.	Lynwood street√√ **A**	(2)	2 correct answer
		(10)	

QUESTION THREE [26 MARKS]
3.1.

3.1.1.	Amount = (R3800 x 5,5% x 2) + R3800√
	          = R418 + R3800√
	          = <u>R4218.00</u>√ **A** (3)
		1 calculating interest
		1 adding principal amount
		1 correct answer

3.1.2.	A = 4,5% x R3800√ R3971 – R3800
	   = <u>R171,00</u> √ **A** or = <u>R171,00</u>
	(2)
	
	B = R3 971 + R178, 695√ **CA**
	   = <u>R4 149,695/R4 149,70</u>√ **A** (2)
		1 multiplying
		1 correct answer
		
		1 adding correctly
		1 correct answer

3.1.3.	Option One√ - More interest was earned.√ **A** (2)	1 correct option 1 correct reason
		(9)

3.2.

3.2.1.	A) ⦀⦀√ **A** B) ⦀⦀ ⦀⦀⦀ √ **A** C) 11 √ **A** D) 4 √ **A** (4)	1 correct tally drawing 1 correct tally drawing 1 correct answer 1 correct answer
3.2.2.	Soccer √√ **A** (2)	2 correct answer
3.2.3.	$\dfrac{10}{30}$ x 100√ = <u>33,3333%/ 33,33%</u> √ **A** (2)	1 multiplying by 100 1 correct answer (NPR)
3.2.4.	10 : 4√ <u>5 : 2</u> √ **A** (2)	1 correct ratio 1 simplification
3.2.5.	$\dfrac{11}{30}$ √ = <u>0,366/0,37</u> √ **A** (2)	1 dividing correct values 1 correct answer (NPR)
3.2.6.	See annexure for graph √√√√ (5)	4 all bars correct 1 title/labels
		(17)

Grand total :75

NAME OF LEARNER:

GRADE:

TITLE: Favourite Sport