KWAZULU-NATAL PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

BALCOMB'S HILL, IMATI & LOWER UMVOTI CIRCUITS

GRADE 12

FINANCE & PROBABILITY

DATE : **28 AUGUST 2025**

TIME : $1\frac{1}{2}$ **HOUR**

TOTAL : **50 marks**

Name of learner :_____

Class :_____

50

This paper consists of 08 pages including the cover page

INSTRUCTIONS AND INFORMATION

1. This paper consists of TWO parts: PART A and PART B and THREE questions.
2. Answer ALL the questions
3. If necessary, answers should be rounded off to TWO decimal places, unless stated otherwise.
4. Write neat and legibly

PART A: FINANCE

TOTAL: 28 marks

QUESTION 01		
1.1	**Ms Zungu wishes to buy a car eighteen months from now. She then decided to open an investment account with Firewood Bank and deposit R100 000. The bank promises the interest rate of 12,5% per annum compounded quarterly.**	
1.1.1	Determine how much will Ms Zungu have accumulated in the investment account after 18 months.	(3)
	.	
1.2	**At the end her investment period, Ms Zungu found out that the car she wishes to buy cost R560 000. She then decided to use all her investment as a deposit, and took out a loan from the bank which charges an interest rate of 11,8% p.a. compounded monthly for 5 years.**	
1.2.1	Determine the loan amount Ms Zungu took from the bank.	(1)
1.2.2	Calculate the monthly instalment she will pay toward her loan.	(4)

12.3	Calculate the interest paid on the loan after 35 repayments.	(6)
1.3	**After 35th repayment, Ms Zungu experienced financial difficulties and was unable to make 36th , 37th and 38th repayments.**	
1.3.1	Determine the balance outstanding on the loan after these three missed repayments.	(3)
1.3.2	Determine the number of months by which her loan will be extended if she continues to pay the same monthly instalment mentioned in 1.2.2	(5)
1.3.2	Determine the amount paid to the loan as the final payment.	(6)

(28)

ADDITIONAL SPACE

PART B: PROBABILITY

TOTAL MARKS: 22 marks

QUESTION 02		
2.1	**Given that the events A and B are independent: $P(A) = 0,28$, $P(not\ B) = 0,7$**	
	Determine:	(3)
2.1.1	$P(A\ and\ B)$	
2.1.2	$P(only\ A)$	(2)
2.2	**Consider the word SCIENCES**	
2.2.1	Determine the number of word arrangements which can be formed from the SCIENCE?	(1)
2.2.2	Determine the probability that a word formed start with a letter N	(3)
2.3	**Four different Mathematics books, two different Novels and three different English books are to be arranged on the shelf.**	
2.3.1	Determine the probability that English book will be first book to be placed on the shelf	(1)

2.3.2	Determine the total number of ways in which these books can be arranged on the shelf if the order of arrangement is not considered	(1)
2.3.3	Determine the probability that Mathematics books are not together on the right.	(2)
QUESTION 03		
3.1	**Consider the digits:** $\{\mathbf{0}; \mathbf{1}; \mathbf{2}; \mathbf{3}; \mathbf{4}; \mathbf{5}; \mathbf{6}; \mathbf{7}; \boldsymbol{and}\ \mathbf{8}\}$	
3.1.1	How many 3-digit numbers can be formed if repetition is allowed?	(2)
3.1.2	How many 3-digit numbers can be formed given that the numbers are greater than 600 and even? Repetition is allowed	(3)
3.2	**In Gauteng number plates are designed with 3 alphabetical letters, excluding vowels, next to one another and then followed by any three digits, from 0 to 9, next to one another. The GP is constant in all Gauteng number plates, for example: TTT 123 GP. Letters and digits may be repeated in a number plate.**	
3.2.1	How many unique number plates can be created?	(2)

3.2.2	Determine the probability that a number plate created start with letter A	(2)

(22)

TOTAL: 50 marks

ADDITIONAL SPACE