MARKING GUIDELINE

MARKS	DURATION	QUESTIONS
37	1 hour	4

Name: _____ Class: _____

Date: _____

MARK ____ / 37

INSTRUCTIONS AND INFORMATION

1. Answer **ALL** the questions in this question paper.
2. Answer QUESTION 1 by **circling** the letter (A–D) in the answer grid at the end of that section.
3. Show **ALL** calculations clearly.
4. Show all units where applicable.
5. Number the answers correctly according to the numbering system used in this question paper.
6. A non-programmable calculator may be used, unless stated otherwise.
7. Write neatly and legibly.

QUESTION 1 [10 MARKS]

Four options are given as possible answers to the following questions. Choose the correct answer and circle the letter (A–D) in the grid at the end of this section. If you want to change your choice, put a cross through the wrong letter and circle your new choice.

1.1 R4 000 is invested at 8% p.a. SIMPLE interest. The interest earned in ONE year is ... (1)

A) R32 **B)** R500

C) R320 ✓ **D)** R4 320

> **Answer: C** — $I = P \times i \times n = 4\,000 \times 0{,}08 \times 1$.
> - **A** — used 0,8% instead of 8%
> - **B** — divided by 8 instead of multiplying
> - **D** — that is the total VALUE, not the interest

1.2 R4 000 at 8% p.a. simple interest for 3 years grows to ... (1)

A) R5 038,85 **B) R4 960 ✓**

C) R4 320 **D)** R960

> **Answer: B** — Interest $= 4\,000 \times 0{,}08 \times 3 =$ R960, and $4\,000 + 960 =$ R4 960.
> - **A** — that is COMPOUND interest, not simple
> - **C** — used only one year
> - **D** — that is the INTEREST alone

1.3 Simple interest differs from compound interest because simple interest is calculated on ... (1)

A) the number of years only **B)** the growing balance

C) the ORIGINAL amount only ✓ **D)** the interest only

> **Answer: C** — Simple interest uses the same principal every year, so the interest is the same each year.
> - **A** — the rate matters too
> - **B** — that is COMPOUND interest
> - **D** — interest is earned ON the principal

1.4 A TV costs R6 000 cash. On hire purchase you pay a 10% deposit and 24 instalments of R260. The TOTAL paid is ... (1)

A) R600 **B)** R6 000

C) R6 240 **D) R6 840 ✓**

> **Answer: D** — Deposit = R600 and 24 × R260 = R6 240, so the total is R6 840.
> - **A** — that is the deposit alone
> - **B** — that is the cash price
> - **C** — left the deposit out

1.5 For that TV, the extra paid compared with the cash price is ... (1)

A) R6 840 **B)** R600

C) R840 ✓ **D)** R240

> **Answer: C** — R6 840 − R6 000 = R840.
> - **A** — that is the total paid
> - **B** — used only the deposit
> - **D** — used only the instalments

1.6 In a budget, which one of the following is INCOME? (1)

A) groceries **B)** rent paid

C) electricity **D) salary received ✓**

> **Answer: D** — Income is money coming IN.
> - **A** — that is an expense
> - **B** — that is an expense
> - **C** — that is an expense

1.7 A household earns R12 000 and spends R13 500 a month. The budget shows a ... (1)

A) deficit of R1 500 ✓ **B)** surplus of R25 500

C) surplus of R1 500 **D)** balanced budget

> **Answer: A** — Spending more than you earn is a deficit.
> - **B** — added the two figures
> - **C** — a surplus is when income EXCEEDS expenses
> - **D** — a balanced budget has income equal to expenses

1.8 What interest RATE turns R2 000 into R2 300 in 2 years at simple interest? (1)

A) 15% **B) 7,5% ✓**

C) 30% **D)** 6,5%

> **Answer: B** — Interest = R300, so $300 = 2\,000 \times i \times 2$ gives $i = 0{,}075$.
> - **A** — forgot to divide by the 2 years
> - **C** — divided 300 by 1 000 instead of by 2 000
> - **D** — used the final R2 300 instead of R2 000

1.9 Which one of the following is a FIXED expense in a monthly budget? (1)

A) rent ✓ **B)** petrol

C) entertainment **D)** clothing

> **Answer: A** — Rent is the same every month.
> - **B** — varies with how far you drive
> - **C** — varies from month to month
> - **D** — varies from month to month

1.10 R5 000 is invested at 6% p.a. simple interest. After how many years is the interest R1 200? (1)

A) 3 **B) 4 ✓**

C) 2 **D)** 5

> **Answer: B** — $1\,200 = 5\,000 \times 0{,}06 \times n$ gives $300n = 1\,200$, so $n = 4$.
> - **A** — that gives R900
> - **C** — that gives R600
> - **D** — that gives R1 500

ANSWER GRID — MARKING GUIDELINE

1.1	A	B	**C**	D
1.2	A	**B**	C	D
1.3	A	B	**C**	D
1.4	A	B	C	**D**
1.5	A	B	**C**	D
1.6	A	B	C	**D**
1.7	**A**	B	C	D
1.8	A	**B**	C	D
1.9	**A**	B	C	D
1.10	A	**B**	C	D

QUESTION 2 [10 MARKS]

Mrs Dlamini borrows R12 000 from a bank at 9% simple interest per year. She repays the loan after 4 years.

2.1 Calculate the simple interest she pays. (3)

$I = P \times i \times n = 12\,000 \times 0{,}09 \times 4$ *(2)*
$= \mathbf{R4\,320}$ *(1)*

2.2 Hence calculate the total amount she repays. (3)

$A = P + I = 12\,000 + 4\,320$ *(2)*
$= \mathbf{R16\,320}$ *(1)*

2.3 Express the interest as a percentage of the total amount repaid, correct to one decimal place. (4)

$\frac{4\,320}{16\,320} \times 100$ *(2)*
$= 26{,}47\ldots$ *(1)*
$= \mathbf{26{,}5\%}$ *(1)*

QUESTION 3 [7 MARKS]

A fridge has a cash price of R18 000. On hire purchase a customer pays a deposit of R2 500 and then 24 monthly instalments of R680.

3.1 Calculate the total amount paid on hire purchase. (3)

$24 \times 680 = \text{R}16\,320$ *(2)*
Total $= 2\,500 + 16\,320 =$ **R18 820** *(1)*

3.2 How much MORE than the cash price does the customer pay? (2)

$18\,820 - 18\,000$ *(1)*
$=$ **R820** *(1)*

3.3 Give ONE reason why a person might still choose hire purchase, even though it costs more. (2)

They do not have the full R18 000 available at once *(1)*
so smaller monthly payments make the fridge affordable now *(1)*

QUESTION 4 [10 MARKS]

A household has a monthly income of R6 800. The monthly expenses are: rent R2 400, food R1 150, transport R900 and electricity R640.

4.1 Calculate the total monthly expenses and the amount left over. (3)

$2\,400 + 1\,150 + 900 + 640 = \text{R}5\,090$ *(2)*
Left over $= 6\,800 - 5\,090 =$ **R1 710** *(1)*

4.2 What percentage of the income is left over? Give your answer correct to one decimal place. (3)

$\frac{1\,710}{6\,800} \times 100$ *(2)*
$=$ **25,1%** *(1)*

4.3 The rent increases by 8%. Calculate the new rent, and state what happens to the amount left over. (4)

Increase $= 2\,400 \times 0{,}08 = \text{R}192$ *(2)*
New rent = **R2 592** *(1)*
The amount left over drops by R192 to R1 518 *(1)*

TOTAL: 37 marks

This question paper consists of 4 questions.

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