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GRADE 10 · FINANCE AND GROWTH

Simple & Compound Interest: The Grade 10 Question Types

EXAM-STYLE CLASS TEST

MARKS	DURATION	QUESTIONS
32	50 minutes	3

Name: _____ Class: _____

Date: _____

MARK ____ / 32

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 R5 000 is invested at 8% p.a. SIMPLE interest for 3 years. The final amount is ... (1)

A) R1 200 **B)** R6 200
C) R5 400 **D)** R6 298,56

1.2 R5 000 is invested at 8% p.a. COMPOUND interest for 3 years. The final amount is ... (1)

A) R5 400 **B)** R1 298,56
C) R6 298,56 **D)** R6 200

1.3 Compound interest earns more than simple interest because ... (1)

A) the principal is larger **B)** the period is longer
C) interest is earned on the interest already added **D)** the interest rate is higher

1.4 R20 000 is invested at 6% p.a. compounded for 5 years. The INTEREST earned is ... (1)

A) R6 000 **B)** R1 200
C) R26 764,51 **D)** R6 764,51

1.5 What principal grows to R12 000 in 4 years at 10% p.a. SIMPLE interest? (1)

A) R4 800 **B)** R8 571,43
C) R8 196,16 **D)** R7 200

1.6 A fridge costs R6 000 cash. On hire purchase you pay a 10% deposit and repay the balance over 2 years at 14% p.a. SIMPLE interest. The TOTAL paid is ... (1)

A) R6 912 **B)** R7 512

C) R7 680 **D)** R6 600

1.7 Inflation runs at 6% p.a. Something costing R500 today will cost ... in 3 years. (1)

A) R95,51 **B)** R590

C) R595,51 **D)** R530

1.8 At what SIMPLE interest rate does R4 000 grow to R5 200 in 5 years? (1)

A) 6% p.a. **B)** 5,4% p.a.

C) 23,1% p.a. **D)** 30% p.a.

1.9 R4 000 grows to R5 324,80 in 3 years at compound interest. The interest RATE is ... (1)

A) 10% p.a. **B)** 11% p.a.

C) 12% p.a. **D)** 33,1% p.a.

1.10 R10 000 at 9% p.a. compounded for 4 years, correct to the NEAREST RAND, is ... (1)

A) R13 600 **B)** R14 115,82

C) R10 900 **D)** R14 116

ANSWER GRID — CIRCLE YOUR ANSWERS FOR QUESTION 1

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 [11 MARKS]

Determine THROUGH CALCULATION which of the two investments below is more profitable.

- R7 000 at 10% p.a. COMPOUND interest for 5 years
- R7 000 at 12% p.a. SIMPLE interest for 5 years

2.1 Calculate the value of the compound-interest investment after 5 years. (3)

2.2 Calculate the value of the simple-interest investment after 5 years. **(3)**

2.3 State which investment is more profitable and by how much. **(3)**

2.4 Explain why the compound investment wins despite its LOWER interest rate. **(2)**

QUESTION 3 [11 MARKS]

Samson buys a television and a DVD player for R12 800. He pays R2 200 in cash and the balance through a hire-purchase agreement at 15% p.a. simple interest, repaid over two years.

3.1 Calculate the amount of the loan. **(2)**

3.2 Calculate the total amount that must be repaid on the loan. **(3)**

3.3 Calculate Samson's monthly repayment. **(3)**

3.4 Determine how much MORE than the cash price of R12 800 Samson pays in total. **(3)**

TOTAL: 32 marks

This question paper consists of 3 questions.

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