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TISITENI COMBINED SCHOOL

TERM 1 2026

GRADE 8

MATHEMATICS

MARKS: 50

EXAMINER : GEMBE MC

MODERATOR: _____

NAME :_____



TIME:

1 hour

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Instructions:

- Answer all the questions and show all your calculations.
- Number your questions as on the question paper.
- No calculators may be used

Question 1

Choose the correct answer and write down the correct letter next to the question number.

1.1 Which of the following numbers are irrational numbers? (2)

A. $0,\dot{8}$

B. $0,5$

C. $-\sqrt{3}$

D. $\sqrt{2\frac{1}{4}}$

1.2 Write the ratio $1\frac{2}{3} : 2\frac{2}{3}$ in its simplest form. (2)

A. 1 : 2

B. 5 : 8

C. 8 : 1

D. 2 : 3

1.3 The value of $\sqrt{\frac{1600}{0,1\times 0,1}}$ is ...

A. 0,4

B. 4

C. 40

D. 400

E. 4000



1.4 $\frac{1}{3}\times\frac{1}{2}\div\frac{1}{3}$ is equal to:

A. $\frac{1}{2}$

B. 1

C. 2

D. $\frac{1}{4}$

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E. $\frac{3}{4}$ (2)

1.5 The values of $\sqrt[3]{73-(-3)^2}$ is...

A. 5
B. 3
C. 4
D. 4
E. 8 (2)

[10]

Question 2

$$\sqrt{3}\ ;\ -\frac{1}{3}\ ;\ \sqrt[3]{-8}\ ;\ \sqrt{9}\ ;\ \frac{0}{5}\ ;\ \frac{\pi}{0}\ ;\ \frac{\pi}{8}\ ;\ \sqrt{-4}\ ;\ 3,\dot{6}\ ;\ \frac{22}{7}$$

From the above list write down all the:

2.1.1 Whole numbers (2)

2.1.2 Integers (2)

2.1.3 Irrational numbers (show all your steps) (2)

2.1.4 Non Real numbers (2)

2.2 Simplify without the use of a calculator.

2.2.1 $(-1,2)^2+0,2^3$ (3)

2.2.1 $2,9-0,08\div 0,2+1,3$ (2)

2.2.3 $-20\times 5-(-22)+(-3)$ (4)

2.2.4 $-\sqrt{\frac{4}{9}}\times\sqrt[3]{\frac{27}{125}}$ (3)



[20]

Question 3

3.1 A bus driver covers a certain distance in three hours at an average speed of 80km/h. Calculate the distance the bus has travelled. (3)

3.2 Calculate the interest that was earned on an investment of R 3000 that was invested for three years, at a simple interest rate of 7,5% per annum. (3)

3.3. The cost price of an item is R250.

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3.3.1 Calculate the VAT on this item (2)

3.3.2 Determine the selling price of this item if the profit is R75. (2)

3.4 There are 240 children at a party. The ratio of the number of boys to the number of girls at the party is 3 : 1 . How many boys are at the party? (3)

[13]

Question 4

4.1 Write down the next two terms in the given sequence 5 ; 9 ; 13 ..... (2)

4.2 Describe the pattern in question 4.1 in words. (1)

4.3 Find the general term of the sequence in question 4.1 in the form $T_n = ...$ (2)

4.4 Which term in the sequence is equal to 37? (2)

[7]

Total [50]



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Memo Gr 8 first term		
1.1	C	(2)
1.2	B	(2)
1.3	D	(2)
1.4	A	(2)
1.5	C	(2)
2.1.1	$\sqrt{9}\ ;\ \frac{0}{5}$ ✓✓	(2)
2.1.2	$\sqrt[3]{-8}\ ;\ \sqrt{9}$ ✓✓	(2)
2.1.3	$\sqrt{3}\ ;\ \frac{\pi}{8}$ ✓✓	(2)
2.1.4	$\frac{\pi}{0}\ ;\ \sqrt{-4}$	(2)
2.2.1	$(-1,2)^2 + 0,2^3$ $= 1,44 + 0,008$ ✓✓ $= 1,448$ ✓ **Answer only, 1 mark**	(3)
2.2.2	$2,9 - 0,08 \div 0,2 + 1,3$ $= 2,9 - 0,4 + 1,3$ ✓ $= 3,8$ ✓ **Answer only, 1 mark**	(2)
2.2.3	$-20 \times 5 - (-22) + (-3)$ $= -100 + 22 - 3$ ✓✓✓ $= -81$ ✓ **Answer only, 1 mark**	(4)
2.2.4	$-\sqrt{\frac{4}{9}} \times \sqrt[3]{\frac{27}{125}}$ $= -\frac{2}{3} \times \frac{3}{5}$ ✓✓ $= -\frac{2}{5}$ ✓ **Answer only, 1 mark**	(3)
3.1	$distance = speed \times time$ ✓ $= 80km/h \times 3hours$ ✓ $= 240km$ ✓	(3)
3.2	$SI = PIN$	

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	$= \frac{3000 \times 7{,}5 \times 3}{100}$ ✓✓ $= R\,675$ ✓	(3)
3.3.1	$\frac{14}{100} \times R250$ ✓ $= R35$ ✓	(2)
3.3.2	$Selling\,\text{Price} = R250 + R75$ ✓ $= R325{,}00$ ✓	(2)
3.4	$3+1=4$ ✓ $Boys = \frac{3}{4} \times 240$ ✓ $=180$ ✓	(3)
4.1	17 ; 21✓✓	(2)
4.2	Add to each consecutive term. ✓	(1)
4.3	$T_n = 4n+5$ ✓✓	(2)
4.4	$37 = 4n+5$ ✓ $4n = 32$ $n = 8$ ✓	(2)

