

PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT



FORM ONE
IRINGA REGION ANNUAL JOINT EXAMINATION – 2023

BASIC MATHEMATICS

041

Time: 2:30 Hours

Tuesday, 21st November 2023 a.m

Instructions

- This paper consists of ten questions
- Answer all questions
- Show all working clearly
- Write your name on every page

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1 a) The L.c.m and G.C.F of 48 and another number is 1680 and 3 respectively. Find the other number.

b) Write 0.006894 correct to

i) 3 significant figures

ii) Three decimal places

iii) Correct to the nearest whole number

2 a) A woman used $\frac{1}{3}$ of her money to buy sugar and $\frac{1}{4}$ of the remaining to buy soap. If in the end she remained with Tsh 5000. Find the amount of money she used to buy sugar.

(b) It is esmated that 30% of the people in Tanzania live in the cities. If there are about 16.2 million Tanzanian live in the cities, what is the population of Tanzania?

3 a) Arrange $\frac{1}{2}, \frac{2}{3}, \frac{3}{8}, \frac{5}{9}$ in descending order.

b) Simplify the following expression $72 \div (6 \times 6) \times 8 + 4 - 1$

4 a) Write 0.121212....in form of $\frac{a}{b}$ where $b \neq 0$

b) The length of three metal rods are 6.15m 1500mm and 506cm respectively. Find the difference in metres between

i) The longest and shortest rods

ii) The longest and the medium rods.

5 a) If the lines $3x+4y=1$ and $2x+8=6y$ intersect at (m,n) . Find the values of m and n .

b) Solve the following simultaneous equations by substitution method.

$$\begin{cases} x + \frac{y+3}{4} = 5 \\ \frac{x-3}{4} + \frac{y}{2} = 2\frac{1}{2} \end{cases}$$

6 a) Work out the following and round off the answer to nearest hundred $4568 \div 0.032$

b) A regular polygon has an exterior angle of 36° . Calculate

i) The size of the interior angle

ii) The number of sides of the polygon.

7 a) Show the solution of the inequality on the number line. $7x - 5 \leq -5 < 2x + 1$

b) A trader deposited Tsh 400000 in a bank for 6 months. Find the simple interest earned at a rate of 6.5% per annum

8 a) Simplify $\frac{1}{2}a + \frac{2}{3}b - \frac{3}{4}b + a$

b) The cost of a 50kg bag of cement is Tsh 8500. How much does 4t 250kg of cement cost?

9 a) The ratio of ages of the father and his son now is 8:3, ten years ago the ratio of their ages was 6:1. Find their present age

b) Perform the following operation on the number line 2-5

10 a) The length of a rectangle is twice its width. If the perimeter of the rectangle is 18cm. find its area.

b) Represent

i) $\frac{2}{5}$ on a number line.

ii) $\frac{9}{5}$ on a number line.