Candidate's Examination Number _____

JXQEBJX

THE REVOLUTIONRY GOVERNMENT OF ZANZIBAR

ZANZIBAR EXAMINATIONS COUNCIL

FORM ONE ENTRANCE EXAMINATION

104 MATHEMATICS

TIME: 2:30 HOURS THURSDAY 17TH OCTOBER, 2024 A.M

INSTRUCTIONS TO THE CANDIDATE

1. **This paper consists of two (2) sections A and B.**
2. **Answer ALL questions in section A and FOUR (4) questions in section B.**
3. **Write your answers in the space provided.**
4. **Write your Examination Number on each page.**
5. **Use a blue or black pen in writing and diagram must be in pencil.**
6. **Cellular phones, calculators and unauthorized materials are not allowed in the examination room.**

FOR EXAMINER'S USE ONLY		
QUESTION NUMBER	**MARKS**	**SIGNATURE**
1.		
2.		
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TOTAL		
CHECKER'S SIGNATURE		

0042479

This paper consists of 15 printed pages

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SECTION A: (60 Marks) **Answer ALL questions in this section.**	For examiners' use only

1. a) i. List all prime numbers between 40 and 56.

WORK SPACE

ii. What is the sum of all prime numbers between 40 and 56?

WORK SPACE

b) Evaluate $-9 \div (+3) \times (-23)$

WORK SPACE

2. a) Convert 700 metres in to kilometres

WORK SPACE

b) Work out

dm	cm	mm
9	4	0
− 6	7	5

WORK SPACE

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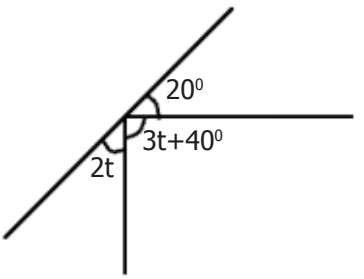
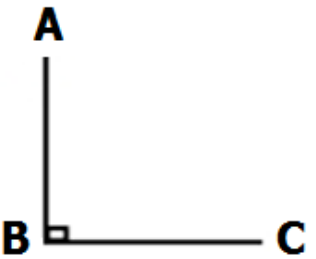
3. a) Find the value of t from the figure below.



WORK SPACE

b) Bisect the given angle by using a mathematical sets then measure the angle and write its value.



WORK SPACE

4. Find the LCM and GCF of $30, 24$ and 36. **WORK SPACE**	For examiners' use only
5. Four best students of STD 5 in Karafuu Primary School have ages 15 years, 17 years, 13 years, and 13 years. Find the average of their ages. **WORK SPACE**	
6. Sungura cut his loaf into 12 equal slices, 3 slices were given to Simba and 4 slices were given to Nyoka. Write as a fraction of the total slices given to both. **WORK SPACE**	

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7. Solve the equation $4(2x - 2) = 3(x + 4)$

WORK SPACE

8. a) Convert the following numbers into given bases

i. $(351)_{10} = (\quad)_4$

WORK SPACE

ii. $(1110)_2 = (\quad)_3$

WORK SPACE

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b) Evaluate

i. $1011_2 + 1101_2 =$

WORK SPACE

ii. $110101_2 - 1010_2 =$

WORK SPACE

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9. a) Simplify the algebraic expression.

$$7x - 16y + 20x + 5y - 12x$$

WORK SPACE

b) A father is five times as old as his son. The difference in their ages is 32 years. How old are they?

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10. a) Write 66.109 in words.

WORK SPACE

b) A water bucket weight was 8.73kg when it was empty and 19.59kg when it was filled with water. How much did the water weigh?

WORK SPACE

SECTION B: (40 Marks) **ANSWER FOUR (4) questions in this section.**	For examiners' use only

11. a) In the bag there are red and green sweets, the ratio of red sweets to green sweets is 3:4. If the bag contains 120 green sweets, how many red sweets are there?

WORK SPACE

b) 4 pineapples cost 14,000/-. How much 35 similar pineapples will cost?

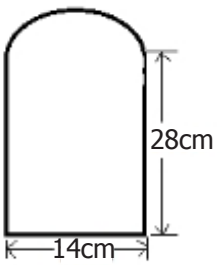
WORK SPACE

For examiners' use only

12. a) Daudi is running around a circular track. If the circle has a diameter 21 metres. Find the circumference of the track. (Use $\pi = \frac{22}{7}$)

WORK SPACE

b) In the morning of Eid fitr, my mother cut a slice of cake as shown below. What is the perimeter of the slice of cake?



WORK SPACE

13. a) A cube has a volume of $343\ \text{cm}^3$. Find its surface area.

For examiners' use only

WORK SPACE

b) A cylinder has a radius of 28 cm. If the cylinder contains 86240 cm^3 of water. How deep is the water? (Use $\pi = \frac{22}{7}$)

WORK SPACE

14. a) Mzee Makelele had 120,000/-. He bought the following goods

3 kg of beans @ 2,700

5 kg of rise @ 4,500

7 kg of sugar @ 2,600

2 bars of soup @ 1,200

How much would he remain with?

WORK SPACE

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b) A cloth dealer bought some clothes for 56,000/- and sold them for 2,950,000/-. Find the percentage profit of the clothes.

WORK SPACE

15. a) At Darajani bureau de change, the rate of exchange is 2,500 Tsh per Us dollar. If I have 3,757,400/- and I want to buy Samsung mobile phone for 1,270 Us dollar, how much money in Us dollar will remain in my pocket?

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WORK SPACE

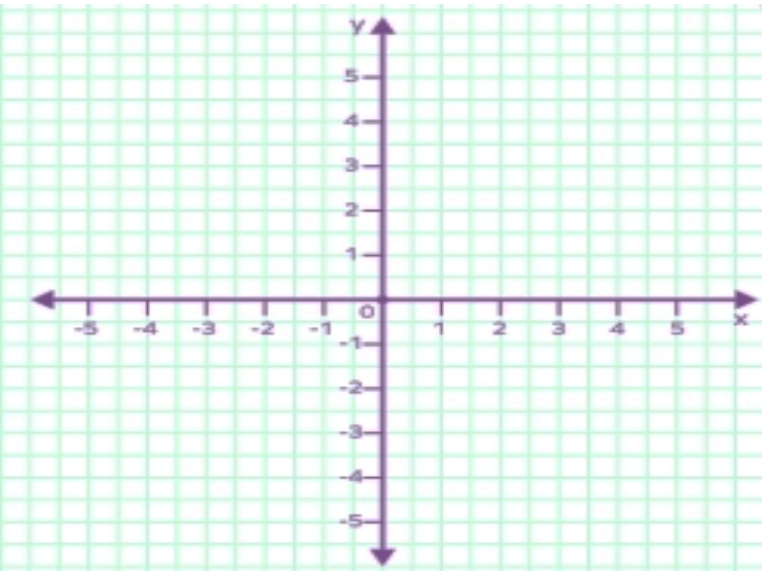
b) What is the rate of exchange when 2,400 South Africa rand were changed by 384,000 Tsh?

WORK SPACE

For examiners' use only

16. Use x-y plane to answer the following questions.

i. Which point $(0,3), (5,0), (-1,3)\ and\ (-2,0)$ is in the y-axis?



ii. You are at A $(-4,3)$, move 5 units right and 2 units up. Write coordinate of point B where you reach.

WORK SPACE

iii. Use xy plane to join the two points in (ii) above and name the line.

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ROUGH SPACE