

**THE PRESIDENT'S OFFICE  
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT  
JOIN THE REVOLUTION PROGRAM  
FORM TWO MONTHLY TEST  
BASIC MATHEMATICS**

**TIME 2:30 HOURS**

**February 2024**

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**INSTRUCTION**

1. This paper consists of a total **ten (10) compulsory** questions
2. Show your work clearly
3. All writing must be in **blue** or **black** ink, except drawings which should be in **pencil**
4. All communication devices, programmable calculators and any unauthorized materials are **not** allowed in the examination room

1. (a) A co-operative society exported two hundred and ninety five thousand, nine hundred and thirty one bags of coffee to one country, and three thousand eight hundred and forty six bags to another country in a year 2023. How many bags of coffee did the co-operative society export altogether in that year?  
 (b) The low temperature in Makambako –Iringa was 15°C last night. During the day it rose only 9°C. Find the high temperature for a day.

2. (a) You sign up 5 students in your class of 20 as volunteers for the cleanup club. A friend in different class sign up 8 students from his class of 32 students. Which of you does a better job of signing up volunteers? Use equivalent fractions to work out the problem  
 (b) Fatuma spends 37.5% of her money on food, 28.75% on rent, 15% on books and the remainder on other things. Write the remainder as a decimal.

3. (a) Express the following radical in their most simplified form

(i)  $\sqrt{75} \div \sqrt{12}$

(ii)  $\sqrt[5]{\frac{18}{50}}$

(iii)  $\frac{6\sqrt{5} \times 2\sqrt{3}}{\sqrt{20} \times 3\sqrt{21}}$

(b) The length of parallel sides of a trapezium are  $(4x-3)$  and  $(x+2)$ . The perpendicular distance between the parallel sides is  $(2x-3)$ . Find the area of the trapezium and write the answer in the form  $ax^2+bx+c$

4. (a) A rectangular garden is 6 metres wide and 8 metres long. What length should be added to the shorter side and reduced from the longer side to form rectangular garden with an area of 45 metres?

(b) Msaki bought a certain number of mangoes for 3600 shillings. If each mango had costed 50 shillings less, he could have bought six more mangoes for the same amount of money, how many mangoes did he buy?

5. (a) Solve the following simultaneous by combination method

$$\begin{cases} \frac{1}{3}x + \frac{1}{2}y = 0 \\ \frac{1}{2}x + \frac{1}{3}y = \frac{5}{6} \end{cases}$$

(b) Hamisi Pambakali has 83 000 Tanzanian shillings for shopping. If he buys 2 ties and 2 shirts, he remains with 9000 Tanzanian shillings. If he buys 1 tie and 3 shirts he spends all the money. Find the price of each tie and each shirt.

6. (a) If 5 is subtracted from twice a certain number y the result is less than 11. Find the value of y.

(b) In order to pass an examination, a candidate must obtain a minimum average of 61 marks in two tests. If Vivian obtained 54 marks in the first test, find the lowest possible marks she should obtain in the second test in order to pass the examination.

7. (a) A boy spent  $\frac{1}{4}$  of his pocket money in one shop and  $\frac{7}{8}$  of the remainder in another shop. If Tsh 9000 was left, how much money he had at first?

(b) Francisca sold an item at Tsh 480 and made a percentage profit of  $33\frac{1}{3}\%$ . What would be her percentage loss if she could have sold the same item at Tsh 288?

8. (a) Express 0.25 as a ratio of two integers  
(b) The ratio of the areas of two similar triangles is 1:4. Find the ratio of their corresponding sides.
9. (a) Find the x-intercept of the line through points (-3, 5) and (0, -1)  
(b) A certain amount of money was divided in the ratio 2:3:5. If the difference between the largest share and the smallest share was sh 7500/=. Find the share
10. (a) Draw a circle with centre O and hence indicate the following  
(i) Arc AB  
(ii) Chord  $\overline{CD}$   
(iii) Sector AOB  
(iv) Radius  $\overline{AO}$   
(b) The side of a square carpet is 14m. If a designer decides to make the largest possible circular carpet  
(i) What will be the area of the formed circular carpet?  
(ii) Find the area of the remaining part of the carpet.

## **KWA MAHITAJI YA**

**01. MITIHANI YA MID-TERM NA MARKING GUIDE ZAKE KWA KILA SOMO KWA VIDATO VYOTE**

**02. SERIES ZA O-LEVEL KWA MASOMO YOTE NA VIDATO VYOTE**

**03. MITIHANI YA KIDATO CHA TANO NA SITA (ADVANCED SERIES) KWA COMBINATION ZOTE**

## **OFA OFA**

**U.B.N COOPERATION TUNATOA OFA MAALUM YA KUJIUNGA NA GROUP LETU LA “U.B.N COOPERATION” KWA WAKUU WA SHULE NA WATAALUMA KWA TSH 50,000/= MIEZI 6 NA 70,000/= MWAKA MZIMA KWA KIDATO KIMOJA AMBAPO UTAPATA MITIHANI YA KILA MWEZI (MONTHLY TEST) KWA MASOMO YOTE NDANI YA MIEZI SITA. OFA HII NI KWA KIDATO CHA PILI NA CHA NNE TUU. ITAKUWA NI (MWEZI MARCH – SEPTEMBER) MIEZI 6 NA MARCH-DECEMBER MWAKA MZIMA ....MWISHO WA KUJIUNGA NA OFA HII NI TAREHE 15/03/2024**

**KWA MAWASILIANO; WASILIANA NASI 0624 254 757 WHATSAPP TUU**

**U.B.N COOPERATION O-LEVEL EXAMINATION SERIES 2024**  
**TIME TABLE FOR ALL SUBJECTS**  
**FORM TWO AND FORM FOUR**  
**FEBRUARY SERIES**

ALL SUBJECTS	DATE	TIME
SERIES - 02	12 <sup>th</sup> February 2024	03:00 – 6:00 pm
SERIES – 03	19 <sup>th</sup> February 2024	03:00 – 6:00 pm
SERIES – 04	26 <sup>th</sup> February 2024	03:00 – 6:00 pm

**CONTENTS COVERED**

**1. SERIES FORM TWO**

**(ALL TOPICS IN FORM ONE AND ONLY TWO TOPICS IN FORM TWO)**

**2. FORM FOUR**

**(ALL TOPICS IN FORM ONE, FORM TWO, FORM THREE AND ONLY TWO TOPICS IN FORM FOUR)**

**ADA : FORM TWO 11,000 MUHULA MZIMA**

**: FORM FOUR 16,000 MUHULA MZIMA**

**DEADLINE : MWISHO WA MALIPO NI TAREHE 15 MARCH 2024**

**NB : ADA ZA MALIPO YA MUHULA HUPANDA KILA DEADLINE  
 INAPOVUKA HIVYO LIPIA MAPEMA KUEPUKA GHARAMA KUBWA  
 BAADAE**

**MALIPO : 5595220 LIPA NAMBA VODA JINA U.B.N ACADEMIC CENTRE**

**FOR MORE INFO**

**CALL US : 0624 254 757**

**MUHIMU**

**RATIBA YA SERIES YA MWEZI WA TATU NA WA  
 NNE ITATUMWA KWENYE GROUP ZA SERIES**