# EDUCATION SOURCE 2024

## PRE-MOCK 2024 SET VII/X

## MATHEMATICS

*Time Allowed: 2 hours 30 minutes*

**Index No:**

| Random No. | | | | | | Personal No. | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

**Candidate's name:** .....

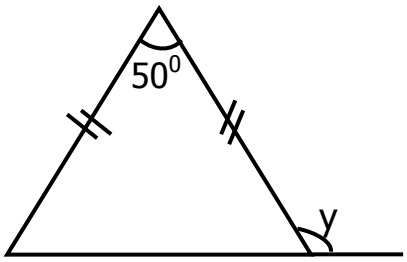
**Candidate's signature:** .....

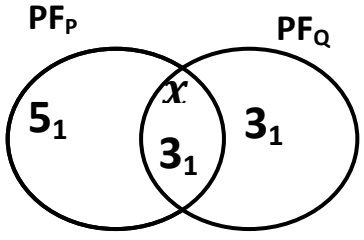
**District :** .....

**Read the following instructions carefully**

1. **This paper has two Sections: A and B.**
2. **Section A has 20 answer questions (40 marks)**
3. **Section B has 12 questions (60 marks)**
4. **Answer ALL questions. Answers to both sections must be written in the spaces provided.**
5. **All answers must be written using blue ink. Diagrams should be drawn in pencil.**
6. **Unnecessary alteration of work may lead to loss of marks.**
7. **Any handwriting that cannot be easily read may lead to loss of marks.**
8. **Do not fill anything in the box indicated for examiner's use only.**

## SECTION A (40marks)

| | | | |
|---|---|---|---|
| 1. | **Workout:** 569-324 | 2. | Find the value of the digit in the hundredths place in the numeral **406.073.** |
| 3. | If  represents **4** bottles, how many bottles are represented by  ? | 4. | **Solve;** $9 - x = 3$ |
| 5. | Calculate the size of the angle marked **y** in the diagram below.   | 6. | With the aid of a ruler, a sharp pencil and a pair of compasses only, construct an angle of $75^0$. |

| | | | |
|---|---|---|---|
| 7. | The lowest common multiples of two numbers is **48** and their greatest common divisor is **6**. If one of the numbers is 24, find the other number. | 8. | Jane and Joan shared a certain number of mangoes in the ratio **5:3** respectively. If Joan got **40** less mangoes than Jane, find the total number of mangoes shared. |
| 9. | Matabi went to a bank and withdraw a bundle of **99** notes numbered consecutively up to **UPQ34992.** Find the serial number of the first note. | 10. | UMEME company planted 41 poles uniformly on a straight line at an interval of 5 metres apart. Calculate the distance between the first and the last pole. |
| 11. | The cost of half kilogrammes of sugar is **sh.1600**. find the cost of **3kg** of sugar. | 12. | The LCM of **P** and **Q** on the Venn diagram below is **90**. Find the value of **X.**   |

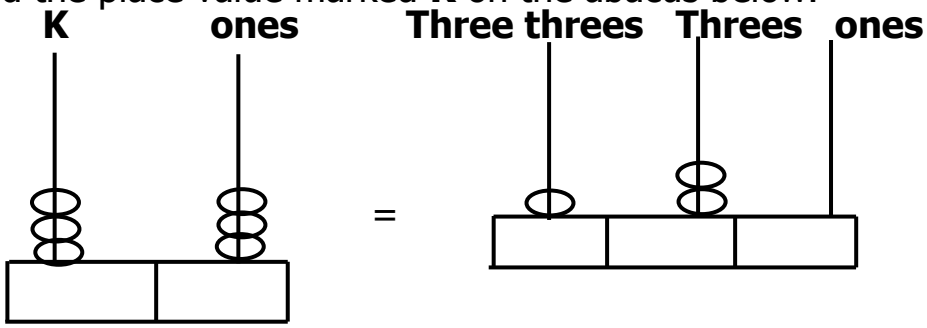
| | | | |
|---|---|---|---|
| 13. | Round off **49.953** to the nearest tenths. | 14. | Find the number whose scientific notation is $3.015 \times 10^2$. |
| 15. | **Work out** 3 ÷ 4 (finite 5) | 16. | Express 30km/hr metres per second. |
| 17. | Change 0.2424 ……to a vulgar fraction. | 18. | **Subtract:** m – 2 from 4m +6 |
| 19. | Given that the numeral 2k9 is divisble by **3** and the sum of its digit is equal to the fifth triangular number. Find the value of **k.** | 20. | If today is a Thursday, what day of the week will it be 49 days from now? |

## SECTION B (60 marks)

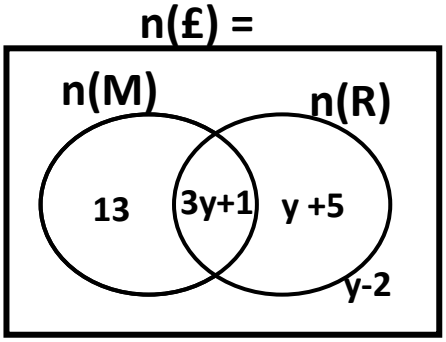
*(Marks for **each** question are indicated in the **brackets**.)*

21. a) Multiply: $32_{five} \times 3_{five}$ ***(2marks)***

b) Find the place value marked **K** on the abacus below. ***(3marks)***




22. In a party attended by various guests, some were served matooke **(M)** while others were served rice **(R)** as shown on the Venn diagram below. Study it carefully and answer questions that follow.




a) If the number of guests who were served with both types of food is equal to the number of guests who were not served with matooke. Calculate the value of **y.** ***(3marks)***

b) How many guests attended the party? ***(2marks)***

23. Oketch deposited sh.900,000 in centenary bank at an interest rate of 12% per annum for 8months.

a) Find how much interest Oketch got. ***(3marks)***

b) Calculate the total amount of money Oketch got at the end of 8months. ***(2marks)***

24. Below is a frequency table, study it correctly and answer the questions that follow.

| Marks scored | 50 | 45 | 30 | 40 |
|---|---|---|---|---|
| Number of pupils | 3 | 2 | 1 | 4 |

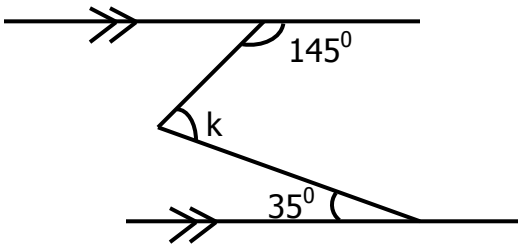
a) How many pupils did the test? ***(2marks)***

b) Find the modal mark. ***(1mark)***

c) Calculate the average mark of the pupils. ***(2marks)***

25. a) Given that **x** and **$40^0$** are complementary angles. Find the value of **x**. ***(2marks)***

b) Find the angle marked k on the diagram below. ***(3marks)***




26. The table below shows the journey YY bus from Kaliro to Mukono. Study it carefully and use it to answer the questions that follow.

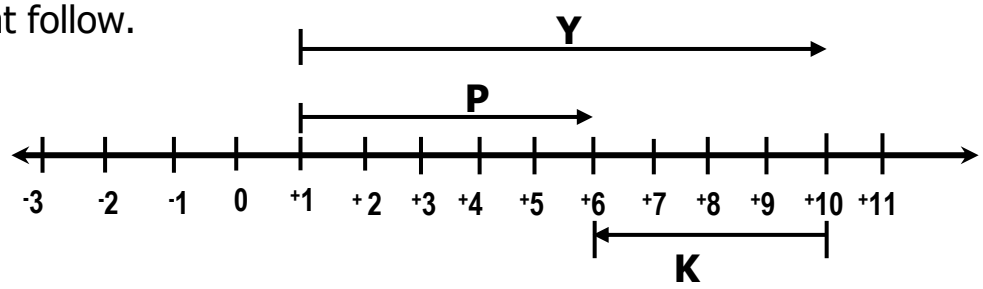
| **TOWN** | **ARRIVAL** | **DEPARTURE** |
|---|---|---|
| Kaliro | | :15am |
| Iganga | 8:05am | 8:10am |
| Magamaga | 9:00am | 9:30am |
| Jinja | 10:00am | 10:15am |
| Lugazi | 11:20am | 11:45am |
| Mukono | 12:15pm | |

a) How long did the bus take to rest at Iganga? ***(1mark)***

b) Express arrival time at Mukono as **24hou**r clock system. ***(1mark)***

c) If the bus travelled at an average speed of 30km/h, how far is Mukono from Kaliro? ***(2marks)***

27. Study the number line below carefully and use it to answer the questions that follow.




a) Name the Integers. ***(1mark each)***

Y = _____ | K = _____ | P = _____

b) Write the Mathematical statement indicated on the number line above. ***(2marks)***

28. **Nical went to the shop and bought the following items.**

2kg kg sugar at sh.2200 perkg.
$1\frac{1}{2}$ litres of cooking oil at sh.4800 per litre.
a bar of soap at sh.5000.
13 apples at sh.7000 for seven apples.

a) Find her total expenditure. ***(4marks)***

b) If she had two notes of twenty thousand shillings, find how much was her change. ***(1mark)***

29. A teacher of maths primary five yellow had cards numbered zero, seven and five. He asked pupils of his class to form **3-digit** numerals.
a) Write down all the possible three digit numerals the learners formed. ***(3marks)***

b) Find the difference between the largest and the smallest numerals formed above. ***(2marks)***

30. Using a ruler, a pencil and a pair of compasses only, construct a triangle PXL such that $\overline{PX}$ = 7cm, angle LPX = $45^0$ and angle PXL = $60^0$. ***(5marks)***

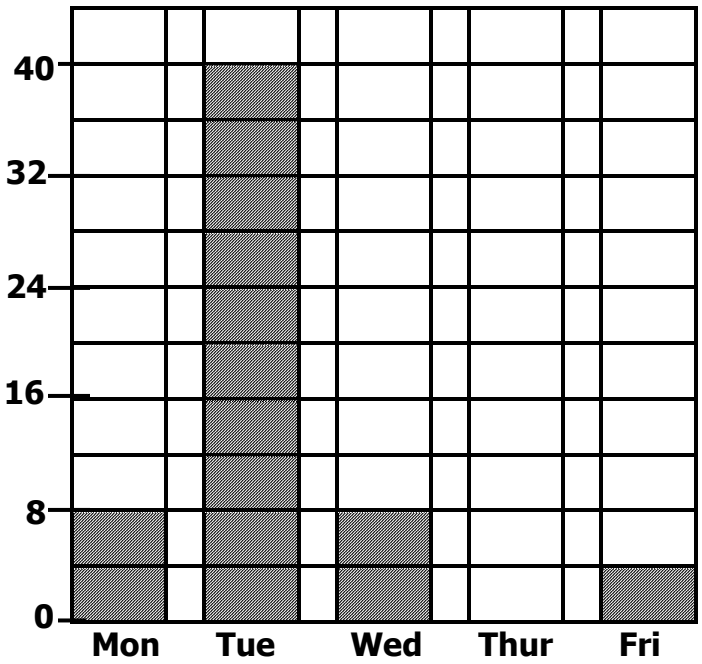
b) Drop a perpendicular line from **L** to meet line **PX** at point **Y.** Measure the length of the line LY. ***(1mark)***

31. A man spends 25% of his monthly salary on food, $\frac{1}{3}$ of the remainder on rent and the rest on others. If he spends sh.200,000 on others,

a) Find the fraction of his monthly salary he spends on others. ***(3marks)***

b) Calculate his monthly salary. ***(2marks)***

32. The graph below shows the number of pupils who were absent in a class of 40 pupils. Study it carefully and answer questions that follow.




a) Which day was a public holiday? ***(1mark)***

b) How many pupils were present on Friday? ***(1mark)***

c) Calculate the average attendance of the class throughout the week. ***(3marks)***

**END**