THE SIPRO P.7 MOCK II - 2024
MATHEMATICS

Time Allowed: *2 Hours 30 Minutes*

Index No.	Random No.					Personai No.		

Candidate's Name: _____

Candidate's signature: _____

School Random No: _____

District: ID: _____

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This paper has two sections: A and B.
2. Section A has **20** questions (**40 Marks**).
3. Section B has **12** questions (**60 Marks**).
4. Attempt all questions in both sections. All answers to both sections **A** and **B** must be written in the spaces provided.
5. All answers must be written in blue or black ball point pens or **ink**. Only diagrams and graph work must be done in **pencil**.
6. Unnecessary **alteration** of work will 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 boxes indicated:
   "FOR EXAMINER'S USE ONLY"

For Examiner's Use Only;

Qn No	MARKS	INITIALS
1- 5		
6 -10		
11-15		
16 -20		
21-22		
23 -24		
25-26		
27-28		
29 -30		
31-32		
Total		

Please turn over

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SECTION: 40 MARKS
Attempt **all** questions in this section.
Questions **1** to 20 carry **two** marks each.

1. **Work out:**

$$\begin{array}{r} 2\ 0\ 4 \\ -\ 9\ 3 \\ \hline \\ \hline \end{array}$$
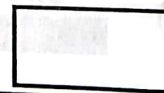
2. How many **vertices** has the pyramid below?
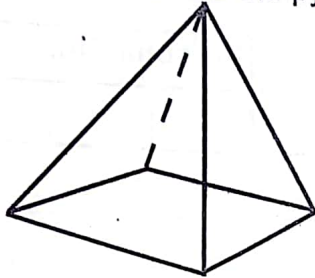
3. Express **13**$_{ten}$ to base two.

4. **Work out:** $1\frac{1}{2} + 3$

5. With the help of a ruler, sharp pencil and a pair of compasses only, construct an angle of **30⁰** in the space provided below.

6. The temperature of a place was 27°C. If it rose by 5°C, work out the new temperature.

7. Ocol sold a bicycle at **sh.205,000** and made a loss of **sh.63,000**. Calculate the buying price of the bicycle.
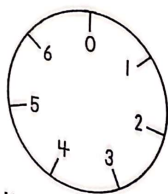
8. In the Venn diagram below, shade the region (G-H)'
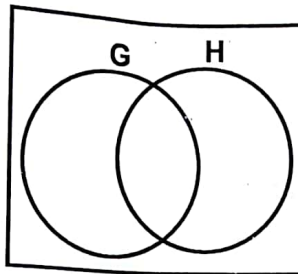
9. A bag contains **6** ripe mangoes and **7** raw ones. If a mango is picked from the bag at random. Find the probability of picking **a ripe** mango.

10. The time is **25** minutes to **midnight**. Express this time on the **24** hour

11. How many **prime** numbers are there between **10** and **20**?

12. **Work out**: $2 - 6$ (finite 7) using a clock dial.

13. Sumaya deposited **sh.130,000** in the bank. If the interest 8% per month, how much interest did she get after 6 mon

14. Round off **48.97** to the nearest tenths.

16. Mark waited for his brother from **7:45 a.m** to **12:05 p.m.** How long did he wait?

17. A 36-metre wire was folded to form a semi-circular shape shown below. Find the length of the wire that formed the diameter of the semi-circle.

$$\left(use\ \pi = \frac{22}{7} \right)$$

18. **Work out:** $(16 \times 41) - (21 \times 16)$

19. A milk can holds **560** centilitres. How many litres of milk does it hold?

20. In a P.5 class, there are **24** and **30** pupils in streams **A** and **B** respectively. In each stream, groups with equal number of pupils were formed. Find the largest number of pupils in each group.
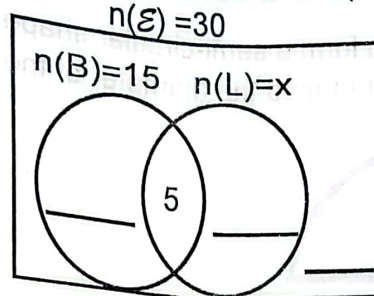
SECTION B: 60 MARKS
Attempt all questions in this section.

Marks for **each part** of the question are **indicated** in the brackets

21. Out of the 30 chicken farmers, 15 rear broilers (**B**), x rear layers (**L**), 5 keep both types of chickens while (**x-2**) do not rear the mentioned types of chickens.

(a) Use the above information to complete the Venn diagram below. *(03 marks)*

n(ℰ) =30

n(B)=15   n(L)=x

5

(b) Find the number of farmers who keep **only** one type of chicken.

(02 marks)

22. (a) Express **200** as a product of its prime factors.   *(02 marks)*

(b) The area of a square garden is 1.96 sq.km. Work out the length of each side of the garden.   *(02 marks)*

23. During the recent census in Kasaato Village, it was found that 500 people were employed, while 60% of the population was unemployed.

a) Find the total number of people in Kasaato Village.   *(03 marks)*

b) By what percentage is the number of unemployed people greater than the number of employed people? *(02 marks)*

24. In the figure below, angle KLM = 90°. *Study and use it to answer the questions that follow.*
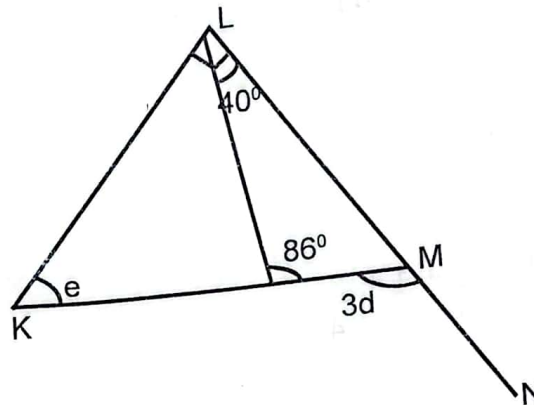
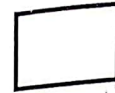Find the size of; *(02 marks)*
(a) angle **d**

(02 marks)

(b) angle **e**

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(03 marks)

25.(a) **Solve:**18-t = 3 +2t

(b) Given that a∗b means **2a + 2b**; Find the value of 5 ∗ 7. *(02 marks)*

26. In a class, the average age of 30 girls is 8 years and the average age of 20 boys is 13 years. Find the average age of all the children in that class. (05 marks)

27. (a) **Work out:** $\dfrac{(5.1 \times 3.2)}{0.03}$ (03 marks)

(b) **Simplify:** $\dfrac{5}{6} - \dfrac{1}{2} \div \dfrac{3}{4}$ (02 marks)

28. The table below shows the denominations, number of notes and amount Betty deposited in the bank.

Denominations	number of notes	Amount
sh. 50,000	40	sh._____
Sh. 20,000	_____	sh. 1,000,000
sh._____	80	sh. 800,000
sh._____	100	sh._____
Total		sh. 4,300,000

Use the information to complete the blank spaces above. (05 marks)

29. A car travelling at 75 kilometres per hour took 2 hours to cover part of its journey. The remaining journey was covered in 3 hours at 60 kilometres per hour.
Find the **average** speed of the car for the whole journey.   *(05 marks)*

. The area of the rectangle **ABCD** below is **240dm²**.
Study the rectangle carefully and answer the questions that follow.

A   (2p - 4)dm   B
D   (p + 6)dm   C
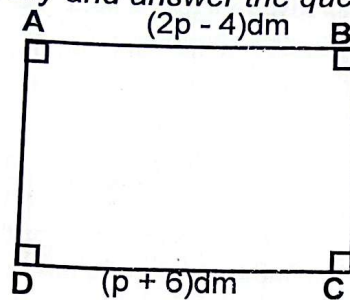
a) Find the value of **p**.   *(02 marks)*

) Calculate the total **distance** round the rectangle.   *(03 marks)*

) With the help of a ruler, sharp pencil and a pair of compasses only, construct a triangle **ABC** in which line **AC** = line **BC**, line **AB** = 8 cm and angle **ABC** = 45⁰.   *(05 marks)*

(b) Measure angle BCA= _____ (01 mark)

32. Use the co-ordinate graph below to answer the questions that follow.
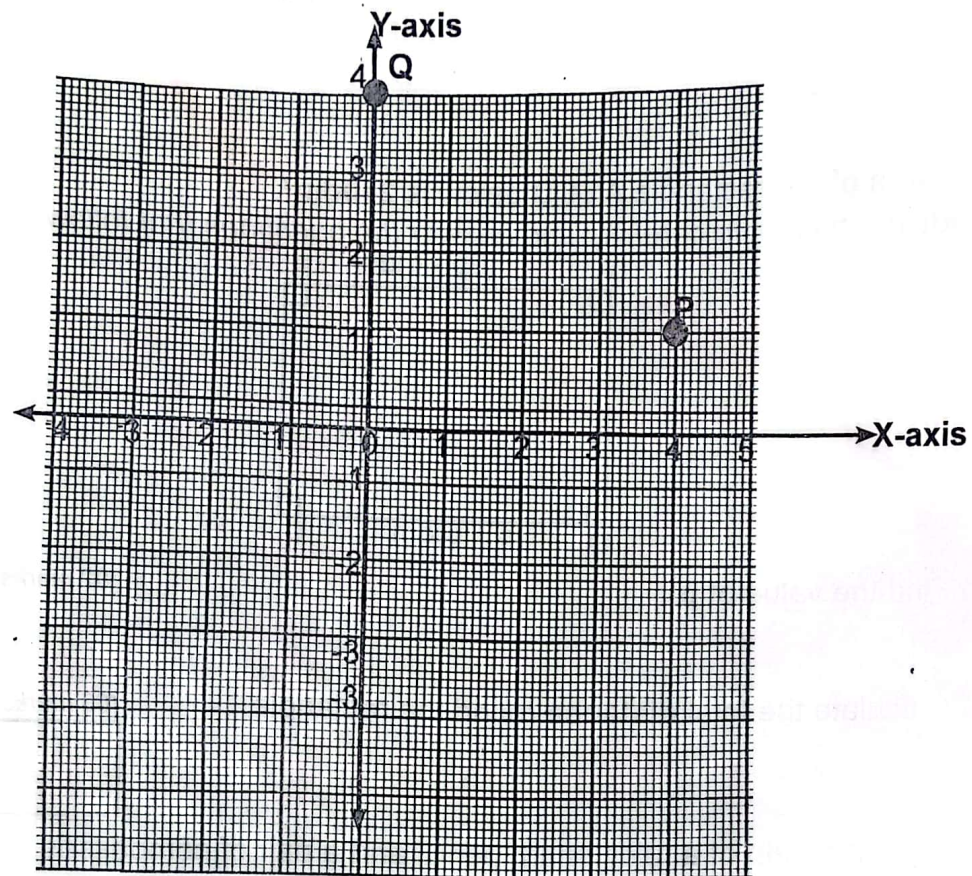
(a) Write down the coordinates of the points **P** and **Q**. (02 marks)

i) P

ii) Q

(b) Plot the points **R** (-1, 1) and **S**(0, -2) on the graph. (02 marks)

(c) Join P to Q, Q to R, R to S and S to P and name the geometric figure formed. (02 marks)