THE SIPRO MID-TERM II EXAMINATIONS -2024
PRIMARY SEVEN MATHEMATICS

Time Allowed: *2 Hours 30 Minutes*

Index No.	Random No.						Personal No.		

Candidate's Name: _____

Candidate's Signature: _____

School Random No: _____

District: ID: _____

For Examiner's Use Only;

PAGES	MARKS	INITIALS
Page 1		
Page 2		
Page 3		
Page 4		
Page 5		
Page 6		
Page 7		
Page 8		
Page 9		
Total		

Please turn over
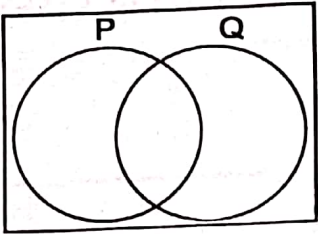
SEMAS | Simplified Learning Today
www.semas.one

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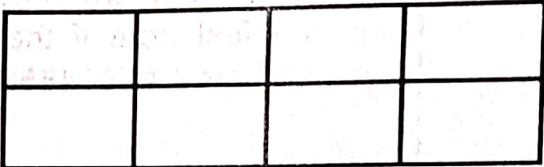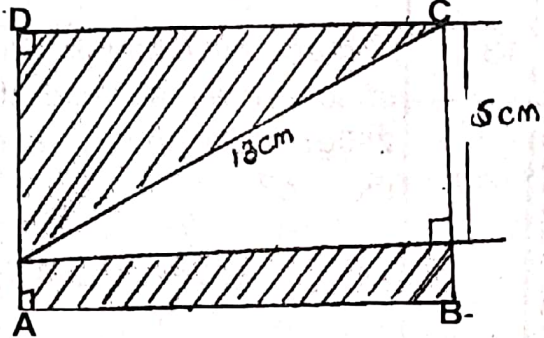
Attempt all questions in this section.
Questions **1** to **20** carry **two** marks each.

1.	**Work out:** $\begin{array}{r} 6\quad4 \\ -2\quad1 \\ \hline \\ \hline \end{array}$	2.	In the venn diagram below, shade **(P-Q)**
3.	**Work out:** $\dfrac{2}{3} + \dfrac{1}{2}$	4.	Change **2340** hours to **12** hour time clock system.
5.	Write **6379.5** in power expanded form.	6.	**Simplify:** $^-6 + {}^-9$
7.	Given that **2b = 8**, a = $^-3$ and c = 4. Find the value of bc - a.	8.	Use a ruler, a pencil and a pair of compasses only to construct a perpendicular line from point **B** to meet line **PQ** at **X**.

9.	Write **CCIX** in Hindu-Arabic numerals.	10.	Work out the mean of 4p + 3,7,5, 2p and 15 + 4p.
11.	Mariam banked **20** consecutive notes of fifty thousand shillings. Find the first note if the last was numbered **AY6746586**.	12.	Given that set **M** = {a, b, c}; **List** all the subsets of set **M**.
13.	A trader has a bag of **25kg** of rice. How many packets of **250gm** does he need to pack the rice?	14.	The interior angle sum of a regular polygon is **720⁰**. Calculate the number of sides the polygon has.

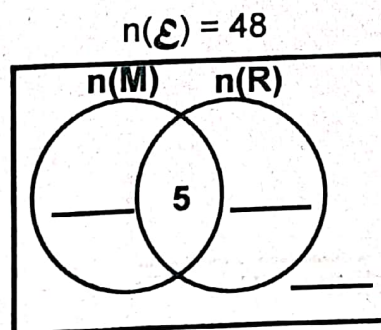| 15.	The ratio of 20 and **X** is 2:3 respectively of the two numbers. Find the Lowest Common Multiple of 20 and **X** if their **G.C.F** is 10.	16.	Work out the number whose **standard** form is 2.95 x 10^{-3}
17.	A car covered **144km** in 2 hours. Express the speed of the car in metres per second.	18.	Shade **25%** of the diagram.
19.	A trader sold two cocks at sh.**120,000** which he bought at sh. **45,000** each. Work out the percentage profit he made.	20.	The diagram below shows a triangle enclosed in a rectangle **ABCD**. Use it to find the length **AD**.

For question 18:

For question 20:

D _____ C

13cm

5cm

A _____ B

SECTION B: 60 MARKS
Attempt all questions in this section.
Marks for **each** part of the question are **indicated** in the brackets

21.a) Use distributive property to work out: $(23 \times 18) + (18 \times 27)$ (02 marks)

b) Solve for **y** in $2^y \div 2^3 = 32$.   (03 marks)

22. In a class of **48** pupils, a third of the pupils eat Matoke (**M**) only, 3x pupils eat rice (**R**) only, **5** pupils eat both Matoke and rice while 3 pupils do not eat any of the two kinds of food.

a) Complete the venn diagram below using the above information.   (03 marks)

$$n(\mathcal{E}) = 48$$

b) Work out the number of pupils who eat **rice**.   (03 marks)

23.	Okumu spent $\frac{3}{5}$ of her salary on rent, $\frac{1}{4}$ of the remainder on food and saved **sh. 240,000**.	
a)	Find the fraction she saved.	(02 marks)
b)	Calculate her **monthly** salary.	(03 marks)

24. a) Use the number line to **work out:** $^+6 - ^-2$.   *(03 marks)*

-5   -4   -3   -2   -1   0   +1   +2   +3   +4   +5   +6

b) If today is Friday, which day of the week was it **28** days ago?
(02 marks)

25.a)	Solve and write the solution set for y if $2(y-7) \leqslant 8$. *(03 marks)*	**b)**	Simplify $\frac{2}{3}(6x + 12) - \frac{1}{4}(8x + 12)$ *(02 marks)*

26. The diagram below is a rectangular tank. *Study and use it to answer the questions that follow*

11 metres

9 metres

20 metres
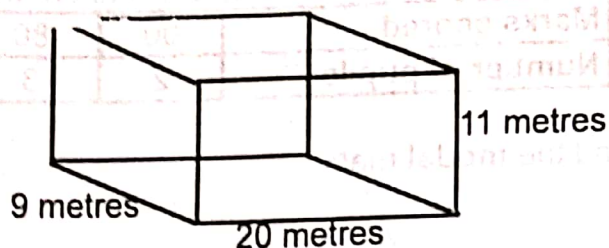
a) Find the sum of all the edges.   *(02 marks)*

b) **Calculate** its total surface area.   *(03 marks)*

27 a) Using a ruler, a pencil and a pair of compasses only, construct a
a rhombus **ABCD**, where line **AB** is 7cm, angle **ABC** is 120^0 and

diagonal **AC** is 12cm.   *(05 marks)*

b) Measure **AD** = _____ cm.   *(01 mark)*

28. The table below shows marks scored and number of pupils who sat a special examination. Use it to answer the questions that follow.

Marks scored	90	80	75	60
Number of pupils	2	3	4	3

a) Find the **modal** mark. (01 mark)

b) How many pupils scored **above** the average mark? (03 marks)

29. The prime factors of **36** and **54** are given below;

$PF_{36} = 2^2 \times 3^2$

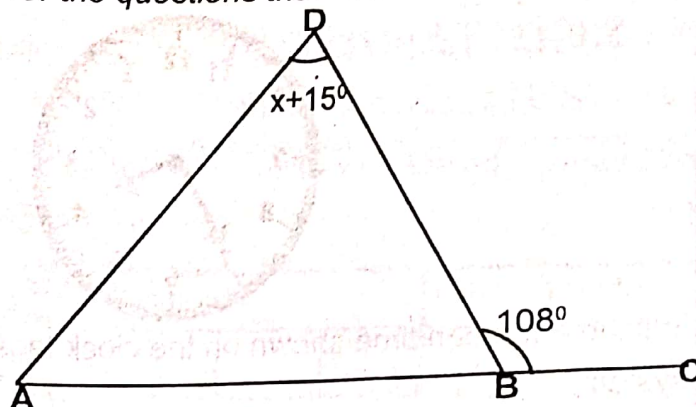$PF_{54} = 2^1 \times 3^3$

Use the above prime factors to:

a) Find the Greatest Common Factor (GCF) of 36 and 54. (02 marks)

b) Work out the **LCM** of 36 and 54. (02 marks)

30. The diagram ABD is a triangle, line ABC is a straight line, angle ADB is X + 15⁰, angle DBC is 108⁰ and angle DAB is twice angle ADB. Study and use it to answer the questions that follow.

| a) | Find the value of **x** in degrees. (03 marks) | b) | Work out the size of angle DAB. (02 marks) |

31. The table below shows different denominations, number of notes and amount. *Study and use it to answer the questions that follow.* Complete the blank spaces.

Denominations	Number of notes	Amount
sh.5000	200 notes	sh._____
sh. 10,000	_____notes	sh.1,000,000
sh._____	50 notes	sh.1,000,000
sh.50,000	_____notes	sh._____
TOTAL		sh. 8,000,000

(05marks)

32. **Below is a 12 hour clock face.** *Study and use it to answer the questions that follow.*

a) Tell the afternoon time shown on the clock face above in a 24 hour clock system. (02 marks)

b) If an activity that started at the time shown on the clock face above took 2 hours and 25 minutes, draw a clock to show the **ending** time of the activity. (03 marks)