THE PRIME EXAMINATIONS 2024
P.7 MAGIC SET II
MATHEMATICS

Time allowed 2 hours 30 minutes

INDEX NO: ⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚

Candidate's Name: ....

Candidate's Signature: ....

District ID No.: ....
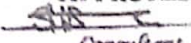
READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. Do not write your **school** or **district name** anywhere on this paper.

2. This paper has **two** sections: A and B Section A has **20** questions and section B has **12** questions. The paper has **9 printed pages**.

3. Answer **all** questions. **All** the working for both sections A and B must be shown in the spaces provided.

4. **All** working **must** be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **not** be marked.

5. **No calculators** are allowed in the examination room.

6. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to **loss of marks**.

7. Do **not** fill anything in the table indicated "For Examiners' use only", and those boxes inside the question paper.

FOR EXAMINERS' USE ONLY		
QUESTION NUMBER	MARKS ATTAINED	INITIALS
1 – 5		
6 – 10		
11 – 15		
16 – 20		
21 – 22		
23 - 24		
25 -26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

APPROVED:

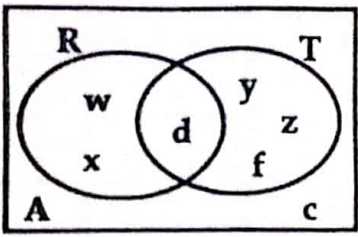*Consultant*

Mathematics Department (PEC)

PUBLISHERS OF: -

Organised by: *Prime Educational Consult* @2024 Kampala *Turn Over*

Section A (40 Marks)

1 Workout: $\square \div 4 = 11$

2 Write 402 in Roman numerals.

3 Simplify: $6p - 9 + 3p - 5$

4 A baby went to bed at 9:15am. If he slept for 6hr 45mins. Write the time he wake up in 12 hour clock system.

5 Use the Venn diagram to find $n(R \cap T)'$

6 A trader has 5.3 tonnes of millet flour. How many grams does he have?

7 List down all the factors of 28.

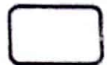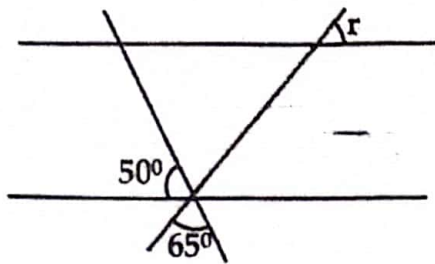| 8	Draw an angle of 125⁰ using a ruler, a pencil and a protractor.
9	Work out the range of 6, -18, 0, 11 and 3.
10	Round off 43 to the nearest tens.
11	Given that 1 British pound sterling (£) costs Ugsh.4,700. How much would one get with Ugsh.141,000 after the exchange?

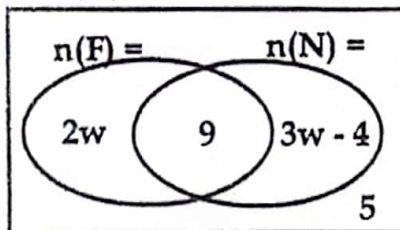|			
12	If ◯ ◯ represent **24 eggs**, draw eggs to represent 60 eggs.	13	Work out: $27 + 9 \div 9$
14	Find the value of r in the figure.	15	The temperature at the top of the mountain was -36^0C. If the temperature reduced by 8^0C, find the new temperature.
16	Draw bundles to represent 36.	17	Increase 6300 books $8\frac{1}{3}$%
18	Solve; $-4 - 2p > -16$	19	Convert 5m/s to km/h.

20	How many five hundred shilling coins can be got from sh.10000?

21	The Venn diagram below shows the number of players who play football (F), Netball (N) and neither. Use it to answer the questions that follow.

$n(F) =$ _____ $n(N) =$ _____

2w   9   3w – 4

5

(a) If 25 players do not play netball at all, find the value of w. (03 marks)

(b) How many players play one type of game only? (02 marks)

22 (a) Complete John's bill table below correctly. (04 marks)

Item	Quantity	Unit price	Amount
Eggs	20	sh.250 each	sh._____
Sugar	$1\frac{1}{4}$ kg	sh.7000 each	sh._____
Cooking oil	$\frac{1}{2}$ litre	sh. _____	sh. 2,400
Total			sh. _____

(b) If he had **sh 17000** at the beginning, how much was his balance? (01 mark)
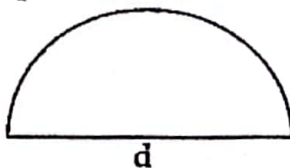
23 (a) Covert 103four to base ten (02 marks)

(b) Write the place value of 2 in 312five. (01 mark)

(c) Workout: 101two x 11two (02 marks)

24 Atim is 15 years older than Benitah. Christiana is 18 years younger than Atim.
(a) If Betinah is 23 years old. Find their total age. (03 *marks*)

(b) How old was Atim when Benitah was 15 years old? (02 *marks*)

25 The perimeter of the figure below is 108cm

d

(a) Find it's radius. (03 *marks*)

(b) Find it's area. (02 *marks*)

26 A tank was $\frac{3}{4}$ full of water. Sam used $\frac{2}{3}$ of the remainder after Tom had used $\frac{2}{5}$ of the water. What fraction remained? (05 *marks*)

27	Using a pair of compasses, a ruler, and a sharp pencil only, construct a parallelogram PTVW whereby $\overline{PT}$ = 6cm, line TV = 4cm angle P =135°. Measure line TW. (05 marks)
28	Pupils Rose, Tina and Wendy shared a certain number of oranges in the ratio of 2:5:1. Given that Tina got 135 oranges. (a) How many oranges did they share altogether? (03 marks) (b) Find the number of oranges Rose got. (02 marks)

29 (a) A cylindrical container has a radius of 2.8cm and height 50cm. Find its capacity. **(03 marks)**
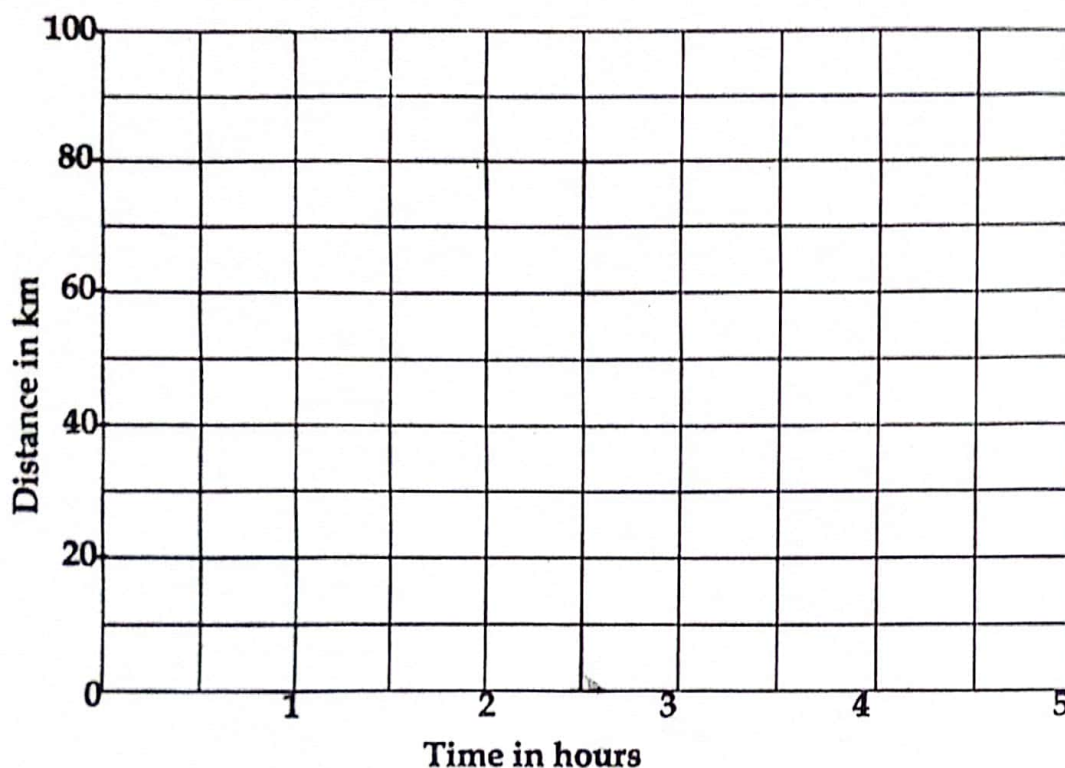
(b) Find its curved surface area. **(02 marks**

30 (a) Find the size of each interior angle of a regular octagon. **(03 marks)**

(b) Workout its interior angle sum. **(02 marks)**

31 The average mass of **5 girls** is **36kg**, the average mass of **3 boys** is **40kg** and the total mass of **2 men** is **100kg**. Find the average mass of the people. **(05 marks)**

32 A cyclist rode from village W to village Y via village X as follows. He rode from village W to village X a distance of 40km for 3 hours. He rested for 30min and continued to village Y a distance of 30km for $1\frac{1}{2}$ hours. Represent the cyclist's journey on the travel graph below. **(03 marks)**

Time in hours

(b) Find the average speed of the cyclist for the whole journey. **(02 marks)**