SURE KEY EXAMINATIONS BOARD

PRE PLE TARGET SERIES

2022

MATHEMATICS

Time Allowed: 2 hours 30 minutes

EMIS No.						Personal No.		

Candidate's Name: ....

Candidate's Signature: ....

School Name: ....

District Name: ....

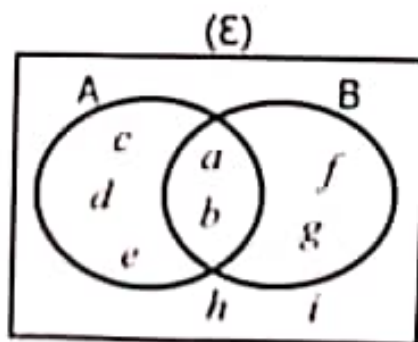### Read the following Instructions carefully:

1. Do not forget to write your **school** and **district name** 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 **15 printed pages** altogether

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 boxes

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Answer **all** questions in this Section

Questions **1** to **20** carry two marks each

1.   Workout: 123 + 321.

2.   Round off 54321 to the nearest ten thousands.

3.   Work out: $\dfrac{3}{4} \div \dfrac{1}{2}$

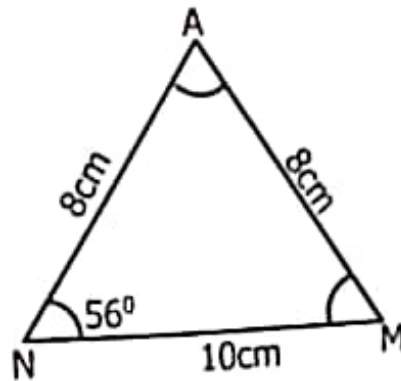4.   Use the Venn diagram below to answer the questions that follow.

Find n(AnB)'

5. Arrange the following integers in descending order.

$$-7, +4, 0, -3, +2, +6$$

6. Find the size of angle **NAM** in degrees.

7. How many $\frac{1}{4}$ litre bottles of sanitizer can be filled in a 5 litre jerrycan that is placed outside your examination room?

8. In a class, there are 20% more boys than girls. If the class has 30 boys, how many pupils are in the class?
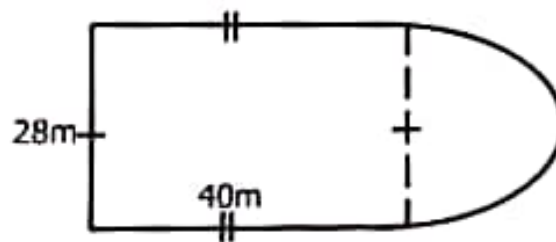
Turn Over

3

9. The area of a square garden is 1600 square metres. Calculate its periemeter.

10. Given that a = bc, b = 2 and c = -3. Evaluate $b(a^2 - c)$.
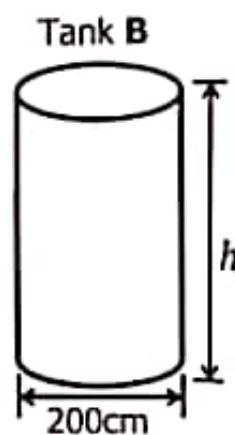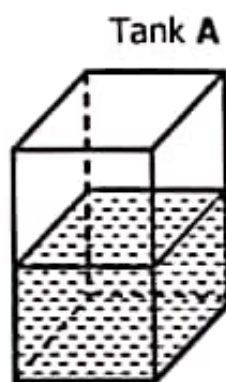
11. Calculate the perimeter of the figure below.   (Use π as $\frac{22}{7}$)

12. At our school, there is a period of 2½ hours that is given to baby class pupils to rest. If that period ends at exactly 1:00p.m, at what time does it begin?

13. If $\frac{3}{4}$ kg of sugar cost Shs.3,150. Find the cost of $3\frac{1}{2}$ kg.

14. The volume of the water in tank **A** is 12560000cm³. The water in the tank was poured in tank **B** and it became completely full. Find the height of tank **B**.

(Use π as 3.14)

Tank **A**   Tank **B**

h

200cm

15. Using a ruler, a pencil and a pair of compasses only, construct an angle of 75⁰ in the space provided below.

Turn Over

16. Given that $P = \{2_1, 2_2, 3_1, 5_1\}$, find the value of P.

17. Use distributive property t workout: $(10 \times 34) + (10 \times 66)$.

18. Sarah was counted as the 13th from either sides of the line. How many people were in the line?

19. Rose is twice as old as Tom. The product of their age is 32 years. How old is Tom?

20. P.7 pupils were told by their teacher to cut out circular cards of diameter 14cm from a rectangular piece of paper measuring 64cm by 46cm. How many circular cards did they cut out?

SECTION B: 60 MARKS

Answer **all** questions in this section

Marks for each question are indicated in brackets.

21. (a) Fill in the missing number in the box and then write it in words.

(02 Marks)

$$\boxed{} + 123 = 2022$$

....

....

(b) Draw the missing beads on the second thread to complete the subtraction statement shown below. (02 Marks)
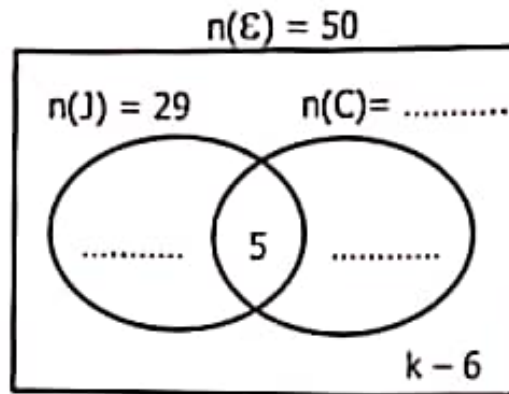

(b) Write the subtraction statement shown on the threads above. (01 Mark)

Turn Over

22. A trader imported 50 cars in total. 29 of them were imported from Japan(J), 2k cars were imported from China (C) but not Japan, 5 cars were imported from both China and Japan while (k − 6) cars were neither imported from Japan nor from China.

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

$$n(\mathcal{E}) = 50$$

n(J) = 29   n(C)= ....

....   5   ....

k − 6

(b) Find the value of k.
(02 Marks)

(c) How many cars were imported from China altogether?
(01 Mark)

8

23. Mr. Ollowo bought the following items from a Supermarket.

   2 dozens of eggs at Shs.200 each egg.
   2 grosses of exercise books at Shs.150 each book.
   2 scores of 20 pencils each at Shs.600 per score.

(a) How much money did Mr. Ollowo spend on all the items? (04 Marks)

(b) If Mr.Ollowo was given change of Sh.800. How much money did he have at first? (01 Mark)

24. A Samsung Galaxy phone costs £200 in Britain. Given that the exchange rates are £1 =US$1.2 and US$ 1 = Ug Shs 3700, calculate the cost of the same Samsung Galaxy phone in Uganda shillings. (04 marks)

Turn Over

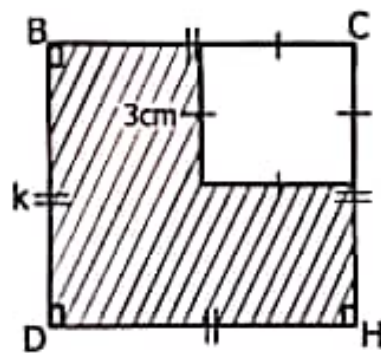25. (a) Simplify: $\dfrac{x^0 + y^0 + z^0}{3}$, such that x, y and z is not 0. (02 Marks)

(b) Solve: $5 \times 5^{2y} = 125$. (03 Marks)

26. (a) A watch loses 3 seconds every after 2 hour. How long does it take to lose 1½ minutes? (03 Marks)

(b) A fuel tank has a height of 7m. Its radius is 2m. What is its capacity?
(Use π as $\frac{22}{7}$) (03 Marks)

27. In the figure below a small square of sides 3cm is drawn in a big square BCDH.
If the area of the unshaded part is $\frac{1}{4}$ the area of BCDH.
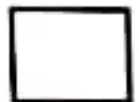

Find the value of k. (04 Marks)

28. (a) Using a ruler, a pencil and a pair of compasses only, construct a regular quadrilateral **WXYZ** where diagonal **ZX** = **YW** = 8cm.
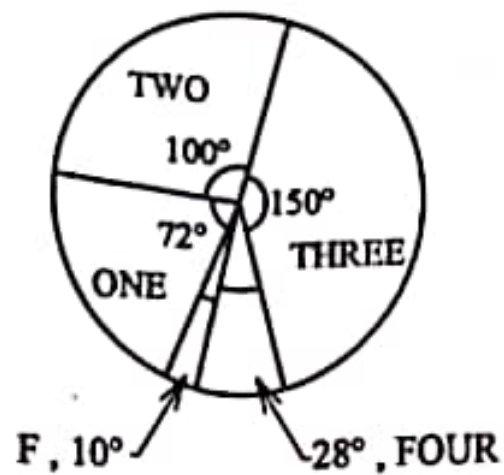
(04 Marks)

(b) Workout the perimeter of the quadrilateral formed. (02 Marks)

9. The pie chart below shows the grades obtained by 180 candidates who sat for their PLE at Quli Qulinga P/S in 2020.
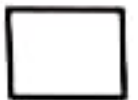

(a) How many candidates obtained grade F?   (02 Marks)

(b) What was the percentage of candidates in grade one?   (02 Marks)

Turn Over

30. A man gave $\frac{2}{5}$ of a sugarcane to his two sons and the rest to his daughters.

    (a) Find the number of children the man has if each of the daughters got $\frac{1}{10}$ of the sugarcane. (03 Marks)

    (b) If each of the sons got a piece of sugarcane 32cm long. Find the Length of the sugarcane the man had. (02 Marks)

31. (a) Three pupils Ham, Seth and Japheth shared money in the ratio 4:6:9 respectively. Japheth received Shs24,300. How much money did the three pupils share altogether? (03 Marks)

(b) How much more money did Seth get than Ham? *(02 Marks)*

32. Kalangala Island is 77km South of Buvuma Island. Ssese Island is 66km West of Kalangala Island.

(a) Using a scale of 1cm representing 11km, show the three Islands on an accurate diagram. *(04 Marks)*

(b) What is the bearing of Buvuma Island from Ssese Island? *(01 Mark)*

15 **END**