NABBUNGA FOUNTAIN OF EDUCATION DAY AND BOARDING PRIMARY SCHOOL,

VILLA ROAD P/S, KASAANA JUNIOR SCHOOL, AND MASTER CARE PRIMARY SCHOOL

PRE-P.L.E JOINT EXAMINATION 2022

SUBJECT : **MATHEMATICS**

DURATION : **2 HOURS 30 MINUTES**

Index No. :

		EMIS NO.				PERSONAL NO.		

Candidate's Name : ....

Candidate's Signature : ....

District Name : ....

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Read the following instructions carefully:

1. This paper has **two** sections: **A** and **B**.

2. All the working for both sections **A** and **B**

   must be shown in the spaces provided.

FOR EXAMINER'S USE ONLY		
SECTION	MARKS	TOTAL MARKS
A		
B		

3. All working must be done using a blue or black ball-point pen or fountain pen. Any work done in pencil other than graphs, pictures and diagrams will **not** be marked.

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

5. Unnecessary changes of work may lead to **loss** of marks.

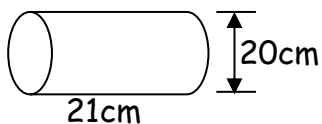6. Any handwriting that cannot easily be read may lead to **loss of marks.**

7. Do **not** fill anything in the boxes indicated: **"For Examiners' Use Only"**

<u>**SECTION A (40marks);**</u>

1. Subtract; 1   3

    <u>-   3   </u>

    _____

2. Write 3049 in words.

3. Queen Elizabeth II was born in 1926. Express her year of birth in Roman numerals.

4. Find the next two numbers in the sequence below;

    2,   3,   5,   7,   _____,   _____

5. Use distributive property to work out;

    (10 x 64) + (10 x 34)

6. If Set K has 16 subsets, how many members does it have?

7. A trader sold a refrigerator set at shs. 360,000 after decreasing the price by 10%. What was the price before the decrease?

8. Using a protractor, a pencil and a ruler, draw an angle of 60^0 in the space below.

9. Arrange ⁻6, ⁺4 , 0 , ⁻3, ⁺2 and ⁻6 in descending order.

10. A tailor bought 4 metres of cloth. If she used 2m 22cm to make a gomesi, how many metres did she remain with?

11. Round off 54.395 to the nearest hundredths.

12. Calculate the volume of the cylinder below.   Take π =

20cm

21cm

13. Given that;

- 1 Kenya shilling costs Ug shs.30
- I US dollar costs Ug shs.2500

How much Kenya shillings does a trader get from 75 US dollars?

14. How many ¼ litre tins of syrup can be filled from a 5 litre jerrycan?

15. If 8 men take 10 days to do a piece of work, how long will 16 men take to do the same piece of work?

16. The of a book is 4 times the cost of a pen and the cost of geometry set is a half the cost of a book. If their total cost is shs. 28,000, calculate the cost of a pen.

17. Simplify; $\dfrac{6^0 + y^0 + 2^0}{3^2}$

18. If $\dfrac{2}{3}$ of a number is 12. What is the ½ of the number?

19. A watch loses 3 seconds for every 2hours. How long does it take the same watch to lose 1½ minutes?

20. The ratio of oranges to mangoes in the basket is 2:5 respectively. If there are 120 more mangoes than oranges in the basket, how many oranges are there?

SECTION B (60 Marks):

21. Mr. Otim bought the following items;
    - 2 dozens of eggs at shs.400 an egg
    - 2 grosses of exercise books at shs.500 @ book
    - 2 scores of pencils at shs. 4000
    a) How much money did Mr. Otim spend on all items?   (4 marks)

b) Calculate the cost of each pencil. (1 mark)
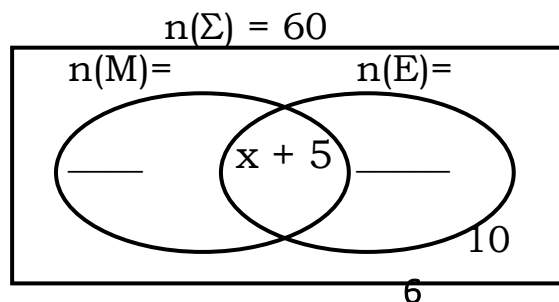
22. a) Solve for n;
$$31_n = 221_{three}.$$ (2marks)

b) Write the place value of the underlined digit in $12\underline{1}2_{five}$. (2marks)

23. In a group of 60 teachers, 40 teach Mathematics (M), 20 teach English (E) x + 5 teachers teach both subjects while 10 teach neither of the two subjects.

a) Represent the above information on the Venn diagram below. (2marks)

n(Σ) = 60

n(M)=   n(E)=

x + 5

10

b)   Find the value of n.   (2marks)

c)   Calculate the probability of picking a teacher who teaches only one subject.   (1mark)

24.   Given that y pens were shared by a class of either 36 girls or 54 boys;
a)   Find the value of y if 7 pens remained.   (3marks)

b)   How many pens did each girl receive?   (1mark)

25.   A lorry full of books weighs 20,000kg. The weight of an empty lorry is 4000kg.
a) Find the weight of the book.   (2marks)

b) Workout the weight of the lorry when ¾ full books.   (3marks)

26. Joanah spent 40% of her salary on rent and 50% on other items. She was left with shs. 300,000.
How much money did she have at first?   (3marks)

b) Represent the above information on a circle graph of radius 4cm.
                                                        (3marks)

27. A tank is ¾ full of water. If 90 litres of water are removed, it becomes ½ full of water.

a) Find the fraction of water removed. (2marks)

b) Calculate the capacity of the tank. (2marks)

28. a) The area of a school square garden is 1600m². Workout its perimeter. (4marks)

b) If the head teacher planted 64 trees at the same interval around the above school square garden, at what interval did he/she plant the trees? (2marks)
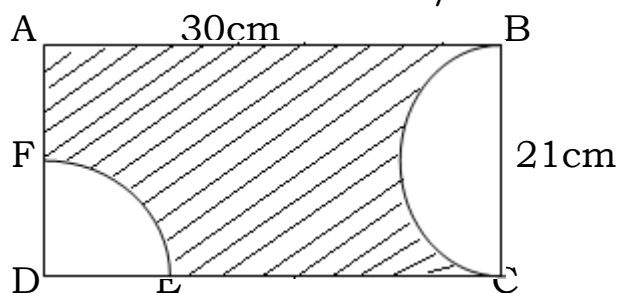
29. A cyclist rode from his home at 9:00am and reached Masaka City at 12:00noon at an average speed of 60km/hr. He later left Masaka City for Kampala at 1:30pm at 40km/hr for 2½hrs.

a) How far is the cyclist's home from Masaka City? (2 marks)

b) Find the average speed for the whole journey.   (3marks)

30. The figure ABCD is a rectangle.   AB = 30cm and BC = 21. FDE is a sector of a circle whose radius is 14cm. Calculate the area of the shaded part (Take π = $\frac{22}{7}$).   (6 marks)

A _____ 30cm _____ B

F   21cm

D   E   C

31. With the help of a ruler, a pencil and a pair of compasses only;
a)   Construct a triangle XYZ in which XY = 6cm, angle XYZ = 45^0 and
     angle ZXY = 60^0.   (4marks)

b)   Measure line YZ.   (1mark)

32. a) Given that L=4, M = -6, AND n = 5. Evaluate $\frac{LN+L}{M}$

                                                      (2marks)

c) Mukajanga is 5 years older than Mawaggali. Mawaggali is 10 years younger than Munana. In 6 years time, their total age will be 72 years. How old is Mawaggali? (3marks)

HARD WORK LEADS TO SUCCESS