

BUGANDA EXAMINATIONS COUNCIL (BECO)
PRIMARY SEVEN PRE-P.L. E 2022
MATHEMATICS

Time Allowed: 2 hours 30 minutes.

School Name.....

Index No.

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Candidate's Name:.....

Candidate's Signature.....

District

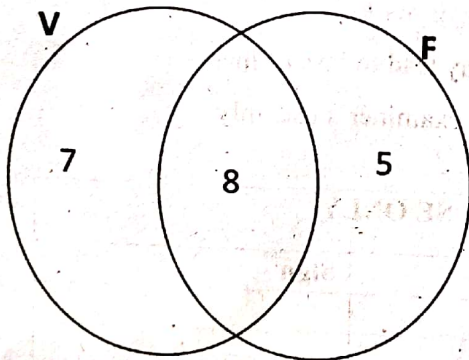
READ THE FOLLOWING INSTRUCTIONS: -

1. The 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. All answers to both sections A and B **must** be written in the spaces provided.
5. All answers must be written using a blue or black ball-point pen or ink.
Diagrams should be drawn in pencil.
6. Unnecessary changes of work may 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 EXAMINERS' USE ONLY		
Number	Marks	Sign
1-10		
11-20		
21-30		
31-32		
TOTAL		

SECTION A (40marks)

1. Work out $91 \div 7$.
2. Write 35, 425 in words.
3. Simplify $7q - 3p - 4q + 5P$.
4. Work out $\frac{3}{4} - \frac{2}{5}$
5. The venn diagram below shows the number of pupils who play football (F) and volleyball (V). Find the number of pupils who do not play one game only.



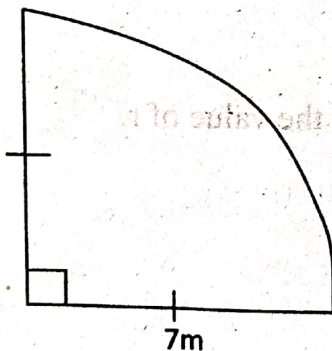
6. Find the range of 5, 3, -4, 2, 0 and -3.

7. A girl picks 37 apples every day. How many days will it take the girl to pick 296 apples?

8. Using a pair of compasses, pencils and a ruler only, construct an angle of 45° in the space provided below.

9. Write the number whose scientific notation is 7.38×10^{-2} .

10. Work out the perimeter of the figure below. (Take π as $\frac{22}{7}$)



11. A meeting started at 12:10pm and lasted for 1 hour and 30 minutes. At what time did the meeting end?

12. Given that $p = -4$ and $r = -3$, find the value of $\frac{3p + r}{3}$

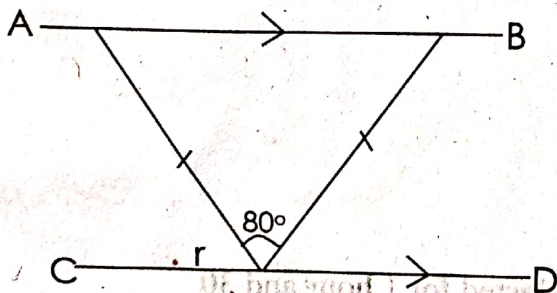
13. Find the sum of the next two numbers in the sequence; 6, 8, 11, 16, 23, ____, ____

14. Work out

$$\begin{array}{r} 3 \quad 0 \quad 3 \text{ five} \\ - \quad 2 \quad 2 \text{ five} \\ \hline \end{array}$$

15. A man had 20km to cover after travelling $\frac{3}{5}$ of the journey.
How long was the journey?

16. In the diagram below, AB is parallel to CD. Find the value of r .



17. Sheila walked 1800 metres in 18 minutes. Find Sheila's average speed in km/h.

18. A trader sold a pen for sh. 2000 and lost 20% of the cost price. Find the cost of the ^{pen} book.

19. Work out: $4 - 7 = \underline{\hspace{2cm}}$ (finite 9)

20. Solve: $8 - n = 5$.

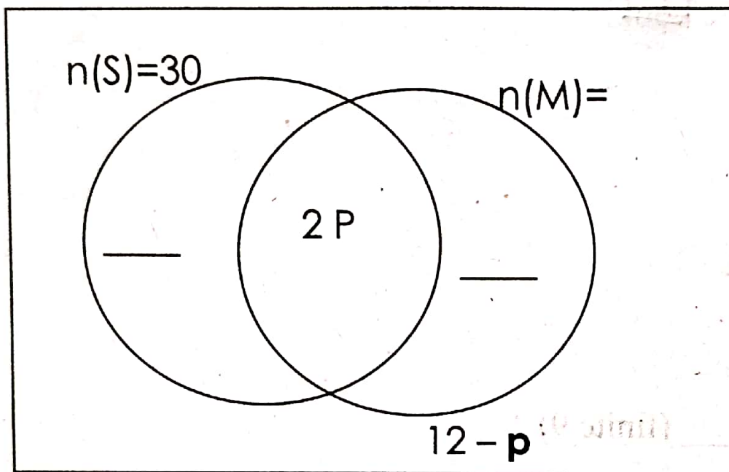
SECTION B(60marks)

Answer all questions in this section.

Marks for each question are indicated in brackets.

21. In a class, 30 pupils like science (S), 16 like Mathematics only (M), 2P like both subjects while $(12 - p)$ do not like any of the two.

a) Complete the venn diagram below: (02marks)



b) Find the value of p if 32 pupils like one subject only. (02marks)

c) What is the probability of choosing a class prefect at random, who likes both subjects? (01mark)

22. The circumference of a circular garden is 176 metres.

Find the area of the garden. $\left(\text{Take } \pi \text{ as } \frac{22}{7} \right)$ (05marks)

23(a) Using a pair of compasses, a ruler and a pencil only, construct a rhombus WXYZ diagonals WY=6cm, and XZ=8cm. (04marks)

(b) Measure line WZ in cm _____ (01mark)

24(a) Change $\frac{1}{15}$ to a decimal. (02marks)

b) Work out $\frac{12.3 + 4.6}{1.3 \times 0.5}$. (03marks)

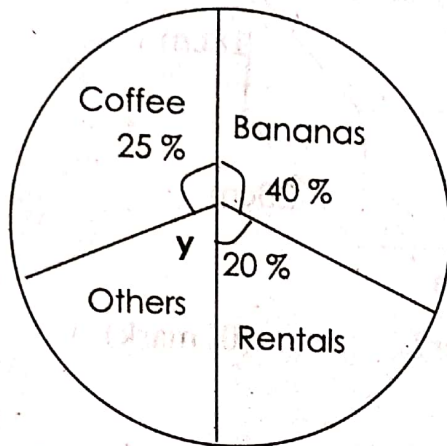
25. Study the table below and answer the questions that follow.

Currency	Buying	Selling
1US dollar	Ugsh. 3600	Ugsh. 3700
1 Kenya shillings	Ugsh. 31	Ugsh.32

a) A trader had sh.3,330,000. How many US dollars will she get? (02marks)

b) A television set costs 200 US dollars and a car costs 900 dollars. Find the total expenditure of the two items in Uganda shillings if the trader buys both items. (03marks)

26. The pie chart below shows how a woman makes use of her land. Study and use it to answer the questions that follow.



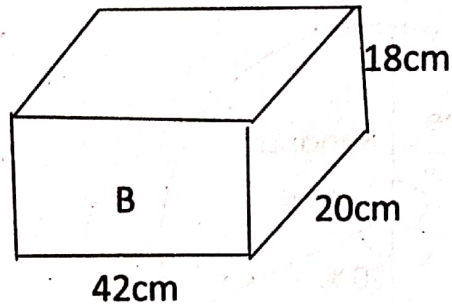
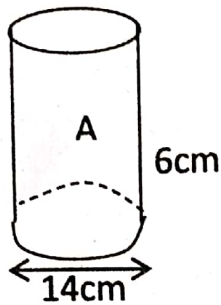
- a) Find the value of y.

(02marks)

- b) If she uses 24,000 m² for Rentals, calculate the area of the whole land.
(02marks)

- c) Express the land used for growing coffee in degrees. (01mark)

27. In the diagram below, cylindrical tins (A) are packed into the box of size (B). Study and use it to answer the questions that follow.



- a) How many tins can be packed in the first layer? (01mark)

- b) How many tins can be packed in the ^{box}tin? (01mark)

- c) Find the space left after packing the tins into the box. (03marks)

28. A tank has two taps that pour water into it. Tap Q turned alone fills the tank in 30 minutes while tap K turned alone fills the tank in 15 minutes. If both taps pour 32 litres of water per minutes, find the amount of water the tank holds when completely full.

(05marks)

29(a) Find the value of p. (03marks)

$$32_p = 26_{ten}$$

b) Show 203_{five} on the abacus. (02marks)

30(a) Solve $\frac{k+1}{3} + \frac{k}{4} = 5$ (02marks)

b) Natalia is three times as old as Joshua. The product of their ages is 108 years. How old was Natalia 2 years ago? (03marks)

31. A bus covered a distance of 360 km in 3 hours from town K to town L. It then continued to town M at a speed of 90km/h for 2 hours.

(a) Find the distance from town K to town M. (02marks)

(b) Work out the average speed of the bus for the whole journey. (03marks)

32(a) Work out $+5 - -3$ using a number line. (02marks)

b) Solve for q: $3 \div q = 4$ (finite7) (03marks)

****END****