

SIR APOLLO KAGGWA SCHOOLS - SINCE 1996
BEGINNING OF TERM III EXAMINATION 2022

PRIMARY SEVEN

MATHEMATICS

Time allowed: 2 hours 30 minutes

Index No.	EMIS NO.	Personal No.

Candidate's Name: _____

Candidate's Signature: _____

District Name: _____

School Name: _____

Read the following instructions carefully:

1. The paper has **two** sections: **A** and **B**
2. Section **A** has 20 short questions (40 marks)
3. Section **B** has 12 questions (60 marks)
4. Answer **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 alteration 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 EXAMINER'S USE ONLY		
Qn. No	MARK	SIGN
1 – 10		
11 – 20		
21 – 30		
31 – 32		
TOTAL		

Turn over

SECTION A (40 MARKS)

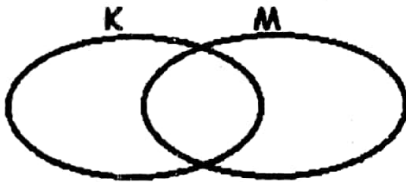
Answer all the questions in this section

Question 1 to 20 carry two marks each.

1. Work out: $48 \div 4$

2. Write 540,062 in words.

3. Shade $(K \cap M)'$ on the Venn diagram below.



4. Decrease 400 cows in the ratio 3 : 5.

5. Find the ordinary number whose scientific form is 2.04×10^{-2} .

6. Convert 9_{ten} to binary base.

7. Joseph died when he was **XCVI** years old. Express his age in Hindu Arabic Numerals.

8. Simplify: $-8 - -5$

9. Today is Friday. What day of the week was it 61 days ago?

10. Using a ruler, a pencil and a pair of compasses only, construct an angle of **75°** .

11. Simplify: $\frac{k^5 \times k^4}{k^6}$

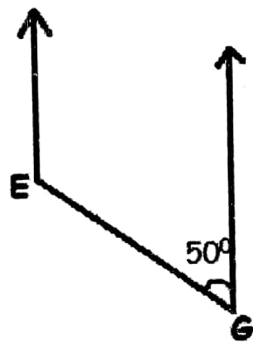
12. Given $F_m = \{ 2_1, 2_2, 3_1, 5_1 \}$ and $F_p = \{ 3_1, 3_2, 5_1 \}$. Find the LCM of M and P .
13. A customer paid sh. 16200 after being given a discount of sh. 2,200 on a wall clock. find its marked price.
14. Solve: $\frac{1}{2} y^2 + 3 = 35$
15. A train covered a distance of 60 km in 1 hour 20 minutes. At what speed was it travelling?
16. It is "thirteen minutes to 3 o'clock in the afternoon." Express it in 24 hour clock system.

17. How many $\frac{3}{5}$ kg packets can be got from 36 kg of rice?

18. Find the next number in the sequence below.

$\frac{1}{3}$, $\frac{1}{6}$, $\frac{1}{12}$, $\frac{1}{24}$, _____

19. Use the diagram below to find the bearing of G from E.

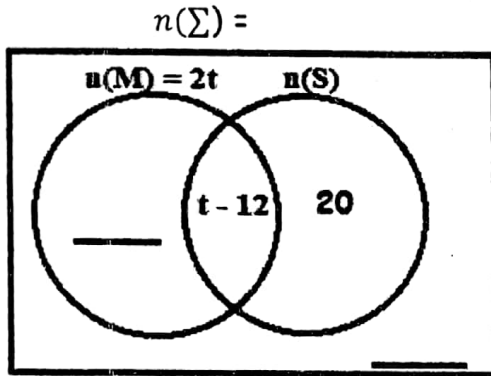


20. After reading $\frac{4}{7}$ of the novel, Musana was still left with 60 pages. how many pages does the novel have?

SECTION B

21. In a primary seven class, 20 pupils like **swimming (S)** only, $2t$ pupils like **Music (M)**, $t - 12$ pupils like both Music and swimming while $t - 10$ like neither of the two activities.

- a) Use the information above to complete the Venn diagram below. (2marks)



- b) If 26 pupils like swimming, find the value of t . (2marks)
- c) Find the probability of picking a pupil at random a pupil who does not like swimming. (2marks)

22a) Work out: $\frac{0.48 \times 0.36}{1.8 \times 0.024}$

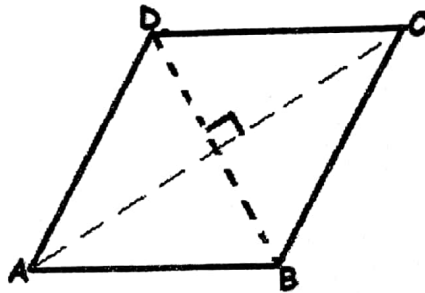
(3marks)

b) Simplify:

$$\frac{0.2-0.12}{0.04}$$

(2marks)

23. The figure below shows a rhombus whose area is 120 cm^2 .



a) If diagonal $AC = 24\text{cm}$, find the length of diagonal BD .

(2marks)

b) Calculate its perimeter.

(3marks)

24. Using a ruler, a pencil and a pair of compasses only, construct a triangle **RMN** in which line **MN** = 6cm, angle **RMN** = 120° and line **RM** = 5cm. (4marks)

- b) Measure the size of angle **MNR**. (1mark)

25. The table below shows how pupils performed in a mathematics test.

Score	Frequency	Total marks
50	3	_____
70	_____	280
_____	2	130
90	1	90

- a) Complete the table above. (3marks)

b) Calculate their average score.

(2marks)

26. Martin bought a radio and sold it to Alice for sh. 345,000 making a profit of 15%. Alice then sold it to Shamim at a loss of 5%.

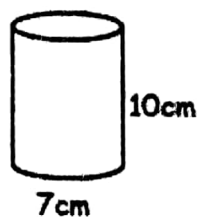
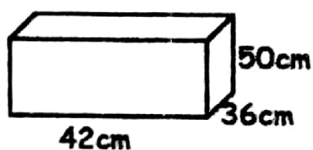
a) How much money did Martin buy the radio?

(2marks)

b) How much money did Shamim pay for the radio?

(2marks)

27. Cylindrical ice cream tins of diameter 7cm and height 10cm were packed in a box measuring 42cm by 36cm by 50cm.



a) How many tins will be packed on the first layer?

(2marks)

b) Find the number of layers in the box.

(2marks)

c) Calculate the volume of all the tins packed in the box.

(2marks)

28. Kato went to the market and bought items whereby he received a discount of 10% and paid sh. 18000 for all the items.

a) Complete the table below.

(5marks)

Item	Quantity	Price	Amount
Sugar	2 kg	Sh. 4000 per kg	Sh. _____
Rice	$1 \frac{1}{2}$ kg	Sh. _____ per kg	Sh. 4500
Soap	_____ tablets	Sh. 2500 per tablet	Sh. _____
		Total	Sh. _____

b) Calculate their average score.

(2marks)

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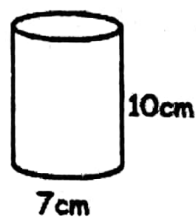
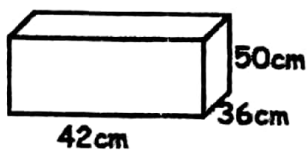
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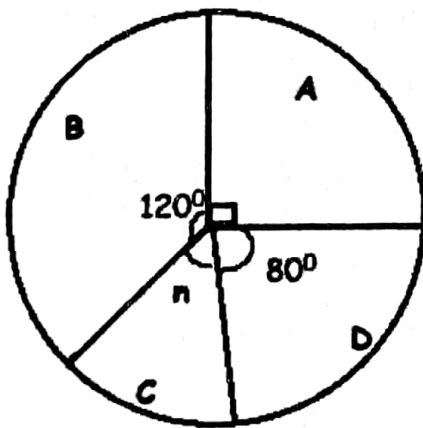
29. Given $P = -4$, $q = \frac{1}{2}$ and $r = 3$, find the value of;

a) pqr (2marks)

b) $r - p^3$ (2marks)

30. The pie chart below shows the number of pupils in different P.7 streams at City Parents' School. Study it carefully and use it to answer the questions that follow.

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



b) If there are 7 more candidates in stream A than D, find the total number of pupils in the class. (2marks)

c) Express the number of pupils in stream C as a fraction.

(1mark)

31. A bus left Kampala at 7:15am travelling at a speed of 80km/hr. At 10:45 am, it got a puncture that took 30 minutes to fix before it continued to Mbarara at a speed of 55km/hr for 2 hours.

a) At what time did the bus arrive at Mbarara?

(2marks)

b) Calculate its average speed for the whole journey.

(4marks)

32. At a shop, the cost of a flask is sh. 3000 less than that of a cooker. A cooker costs two thirds as much as a water heater. If all the items cost sh. 49,500. Find the cost of the flask.

(4marks)

THE END