

## SUREKEY EXAMINATIONS BOARD

## PRIMARY SEVEN PRE-REGISTRATION SET EXAMINATION

#### 2024

### MATHEMATICS

## Time Allowed: 2 hours 30 minutes

| Index No. | EMIS No. |  |  |  | Personal No. |  |  |  |  |
|-----------|----------|--|--|--|--------------|--|--|--|--|
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| Candidate's Name:   |               |
|---|---------------|
| Candidate's Signature:  |               |
| School Name:  |               |
| District Name:  |               |
| Read the following instructions carefully:  | FOR EXAMINERS |
| <ol> <li>Do not forget to write your school and<br/>district name on this paper.</li> </ol> | USE ONLY      |

- - 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 inside the question paper.

| FOR EXAMINERS' USE ONLY |       |              |  |  |
|-------------------------|-------|--------------|--|--|
| Qn.No.                  | MARKS | EXR'S<br>NO. |  |  |
| 1 - 5                   |       |              |  |  |
| 6 - 10                  |       |              |  |  |
| 11 - 15                 |       |              |  |  |
| 16 - 20                 |       |              |  |  |
| 21 - 22                 |       |              |  |  |
| 23 - 24                 |       |              |  |  |
| 25 - 26                 |       |              |  |  |
| 27 - 28                 |       |              |  |  |
| 29 - 30                 |       |              |  |  |
| 31 - 32                 |       |              |  |  |
| TOTAL                   |       |              |  |  |

# SECTION A: 40 MARKS

Answer all questions in this Section

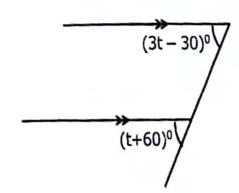
Questions 1 to 20 carry two marks each

- Workout: 16 + 254.
- 2. Write CXLIV in Hindu Arabic numeral system.

3. Find the next two terms in the sequence below.

2, 4, 7, 12, 19, ......

4. In the figure below, find the value of t in degrees.



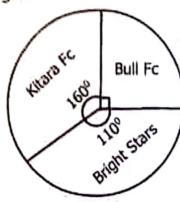
5. Workout the product of 2.4 and 0.6.

6. Calculate the circumference of a car tyre of diameter 56cm. (Use  $\pi$  as  $\frac{22}{7}$ )

7. Given that  $2^{3m} \div 2^m = 2^8$ , find the value of m.

8. A school bursar issued receipts from the receipt book numbered consecutively from 294 to 305 to pupils. How many pupils were issued receipts that day?

 There are 20 more boys than girls in a class. 40 of the pupils in the class are girls. Find the probability of choosing a boy to be class monitor from the class.  The Pie-Chart below shows how three teams have collected points in the Uganda Premier League.



If Bright Stars has 33 points, calculate the total number of points collected by the three teams.

11. Write  $(6 \times 10^2) + (4 \times 10^{-2})$  in short.

12. By selling 15 eggs at Sh.6,000, a trader realizes a loss of Sh.1,500. At how much did he buy each egg?

13. Work out: (3.6 x 175) + (25 x 3.6)

14. Three prisoners can slash a compound in 20 minutes. How long will five prisoners take to slash the compound while working at the same rate?

15. The mass of a packet of yoghurt is  $\frac{1}{20}kg$ . Convert the mass to grams.

16. Everyday, Jonathan misses the first 30 minutes of the morning lessons due to late coming. How many hours does he miss in six days?

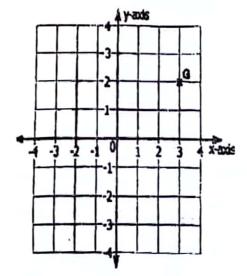
17. The table below shows marks scored by 5 pupils in an English test.

| Marks         | 60 | 20 |  |
|---------------|----|----|--|
| No. of pupils | 2  | 3  |  |

Find the average score of the test

18. Workout: 
$$\frac{3}{4} + \frac{1}{5}$$

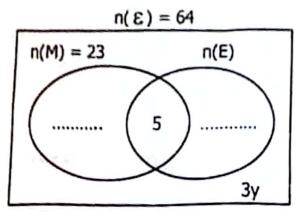
19. Study the coordinate graph below and use it to answer the questions that follow.



- (a) Write the coordinates of point G.
- (b) Plot the point T(-2,0) on the coordinate graph.

| 20. | the fasting lasted for 29 days. On which day and date did the fasting end? |  |                      |  |  |
|-----|--|--|----------------------|--|--|
|     |  |  |                      |  |  |
|     |  | SECTION B: 60 MARKS  |                      |  |  |
|     |  | Answer all questions in this section<br>Marks for each question are indicated in brackets. |                      |  |  |
| 21. | (a)  | Given that $43t = 23$ , find the unknown base representation letter t.                     | ted by<br>(03 Marks) |  |  |
|     |  |  |                      |  |  |
|     |  |  |                      |  |  |
|     |  |  |                      |  |  |
|     |  |  |                      |  |  |
|     | (b)  | Express 27 <sub>ten</sub> as a binary base.  | (02 Marks)           |  |  |
|     |  |  |                      |  |  |
|     |  |  |                      |  |  |
|     |  |  |                      |  |  |

- In a class of 64 pupils, 23 pupils like Mathematics (M), 20 like only English (E), 5 pupils like both subjects why 3y pupils like neither Mathematics nor English.
  - (a) Complete the Venn diagram below using the above information.
    (02 Marks)



(b) Find the value of y.

(02 Marks)

(c) Determine the number of pupils in the class who do not like Mathematics. (02 Marks)

- 23. Mariana was given Sh.90,000 to buy scholastic materials indicated on the shopping list below.
  - $1\frac{1}{2}$  dozen of books at Sh. 4,000 a book.
  - 8 pens at Sh. 500 each pen.
  - 5 pencils at Sh. 500 each pencil.
  - 1 long ruler at Sh. 1,000 and a Geometry set.

After buying all the items, she was given a change of Sh.6,500, what was the cost price of a Geometry set? (06 Marks)

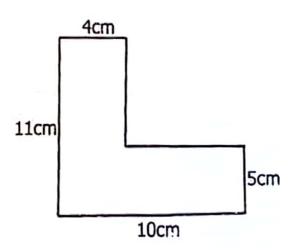
Three children shared 25 sweets. Angel got 4 sweets more than Kyeyune and Muhammad got 6 sweets less than Kyeyune. Calculate the number of sweets each child got. (05 Marks)

25. (a) Workout: 64.3 + 7.1 + 0.45

(02 Marks)

(b) On an animal farm,  $\frac{3}{7}$  of the cattle are bulls and the rest are cows. The farm has 280 cattle. How many more cows than bulls are on the farm? (03 Marks)

26. Study the figure below and use it to answer the questions that follow.



(a) Find the total distance around the figure.

(02 Marks)

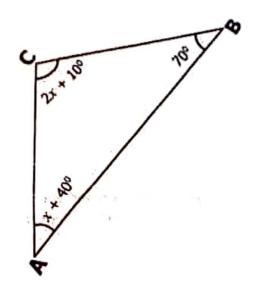
| (b) | Workout the total | area covered | by the figure above. | (03 Marks) |
|-----|-------------------|--------------|----------------------|------------|
|     |                   |              |                      |            |

Using a pair of compasses, a ruler and a pencil only, construct a triangle MTN where length MT = 7 cm, MN = 5 cm and angle NMT =  $60^{\circ}$ . (04 Marks)

(01 Mark)

**Turn Over** 

28. Study triangle ABC below and use it to answer the questions that follow.



(a) Find the value of x in degrees.

(03 Marks)

(b) Find the size of the angle at point **C**.

(02 Marks)



+ 3 54

Min

28

Hrs

5

(b) A motorcyclist covered 25km in  $1\frac{1}{2}$  hour before getting a flat tyre which took him 30 minutes to fix. He then covered the remaining 17km in one hour. Calculate the motorcyclist's average speed for the whole journey. (03 Marks)

30. (a) By listing down factors, workout the Greatest Common Divisor (GCD) of 18 and 24. (02 Marks)

(b) Without carrying out actual division, show which of the numbers 641 and 642 is directly divisible by 3. (02 Marks

31. The milk can below has a base area of 154cm<sup>2</sup>. Using  $\pi$  as  $\frac{22}{7}$  answer the questions that follow.



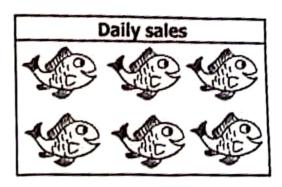
(a) Find the radius of its base.

(02 Marks)

(b) Calculate in litres the amount of milk it holds.

(03 Marks)

32. A fishmonger sells fish as indicated in the Picto-Graph below.



Given that represent 24 fish, how much money does the fishmonger earn daily if he sells each fish at Sh.20,000?

END

