HILLSIDE PRIMARY SCHOOL

EXAMINATIONS
2023

MATHEMATICS (SET ONE)

Time Allowed: 2 Hours 30 Minutes

Index No.	Random No.						Personal No.		

Candidate's Name.....**Stream**.....

Candidate's Signature.....

EMIS No.....

District Name.....

Read the following instructions carefully:

1. The paper has **two** sections: **A** and **B**. Section A has 20 questions and Section B has 12 questions

2. Answer **all** questions. All answers to both sections **A** and **B** must be written in the spaces provided.

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

4. No calculators are allowed in the examination room.
5. Unnecessary changes in work may lead to loss of marks. Any handwriting that cannot easily be read may lead to loss of marks.
6. Do not fill anything in boxes indicated: **"For Examiners' Use Only"** and those inside the paper.

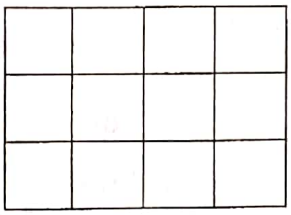
FOR EXAMINERS' USE ONLY		
Qn. No.	MARKS	EXRS' NO
1- 5		
6- 10		
11- 15		
16- 20		
21- 22		
23- 24		
25- 26		
27- 28		
29- 30		
31- 32		
TOTAL		

SECTION A: (40 marks)

1. Workout $18 \div 6$

2. Write 36.14 in expanded form using exponents

3. The area of each square in the figure below is $9cm^2$. Find the perimeter around the whole figure.



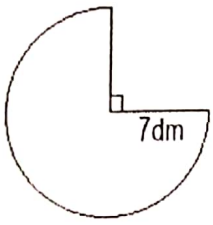
4. Express XCIV in Hindu Arabic numerals

5. Solve for d: $7 = 1 - 2d$

6. If set K ={ the first four triangular numbers} ; find n(K)

7. Work out: $\frac{3}{4} \div \frac{1}{3}$ using LCM

8. Calculate the length of the arc in the figure below.

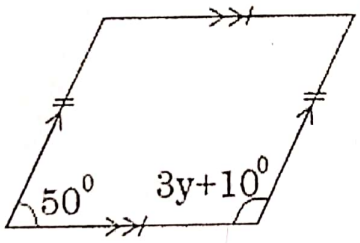


9. Work out: y = 2 - 3 (finite 7)

10. What is the sum of the place value of 6 and value of 5 in 43.2576?

11. Express $\frac{1}{4} : \frac{1}{2}$ as a percentage.

12. In the diagram below, find the value of y in degrees.



13. Subtract: $301_{four} - 203_{four}$.

14. The direction of A from B is $N35^0W$. What is the bearing of A from B?

15. Two dozens of books cost sh.12, 000. Find the cost of 4 similar books.

16. In a class, the ratio of girls to boys is 3:5. If there are 18 more boys than girls, how many pupils are in class altogether?

17. In 2minutes Makula walks 300metres. Calculate her speed in Km/hr

18. Find the mean of 6, 2 , 4d , 4 , 8d , 24.

19. The LCM of two numbers is 72 and their G.C.F is 12. If the first number is 24, find the second number.

20. A meeting lasting $2\frac{3}{4}$ hours started at 10:30 a.m. At what time did the meeting end?

SECTION B: (60 marks)

21. A school bursar withdrew the following amount of money;
    - 12 – fifty thousand shilling notes
    - 8 –twenty thousand shilling notes
    - 20 –five thousand shillings notes
    - 48 – five hundred shilling coins

    a) How much money did he withdraw altogether? **(5 marks)**

    b) If he had asked for two thousand shilling notes, how many notes would he get? **(1 marks)**

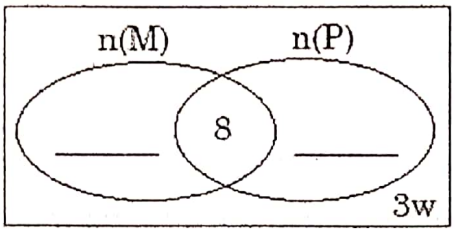
22. Two bells are rung at intervals of 40 minutes and 50 minutes for the lower and upper primary respectively.

    a) After how many minutes will the two bells ring altogether? **(3 marks)**

b) If they last rung altogether at 08:00 am, at what time will they ring together again for the third time? **(2 marks)**

23. At a picnic, 30 guest took Mirinda (M), w took Pepsi (P) only, 8 took both drinks while 3w took other types of soda.

a) Complete the Venn diagram below. **(2 marks)**



b) If the guests took Pespi, find the value of w. **(1 mark)**

c) How many guests attended the picnic altogether? **(2 marks)**

24. The table below shows the weights of Mr. and Mrs. Wadada's family members.

Weights (Kg)	Number of members	Total
80	.....	160
.....	5	15
65	2	.....
90	1	90

a) Complete the table. **(3 marks)**

b) Work out the average weight of the family members. **(2 marks)**

25. a) With the help of a ruler, a pencil and a pair of compasses only, construct a triangle ABC where angle BAC =45° and ABC =60° and length AC =8cm. **(4 marks)**

b) Drop a perpendicular from C to meet AB at X. **(1 mark)**

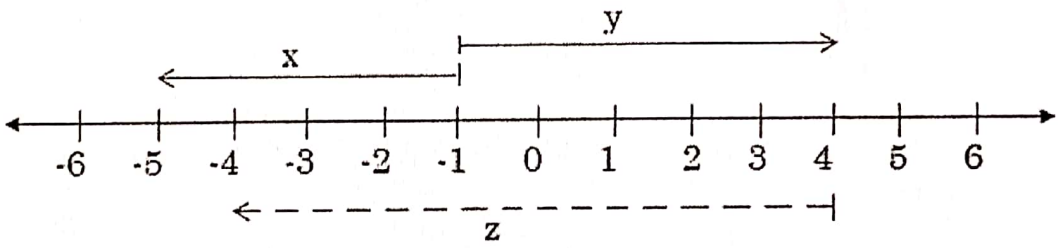
c) Measure angle AXC. **(1 mark)**

26. a) Work out: (15.5 x 6.4) + (34.5 x 6.4) **(2 marks)**

b) Write 0.00657 in scientific form. **(2 marks)**

c) Round off the smallest four –digit number formed by the digits 2, 0, 6 and 5 to the nearest tens. **(2 marks)**

27. Use the number line below to answer the questions that follow.



a) Write the integer represented by the arrow on the number line above. **(1 mark each)**

i) x = ... ii) y = ...iii) z = ...

b) Write down the mathematical statement shown on the number line above. **(1 mark)**

28. Town P is 60km away from town Q on a bearing of 120^0. Alupot moved to town R which is 70km away from town P on a bearing of 230^0.

a) Draw a sketch diagram showing the three towns. **(1 mark)**

b) Using a scale of 1cm to represent 10km, draw an accurate diagram showing all the three towns. **(4 marks)**

29. a) At a wedding party attended by 140 people. There were 20% more women than men.

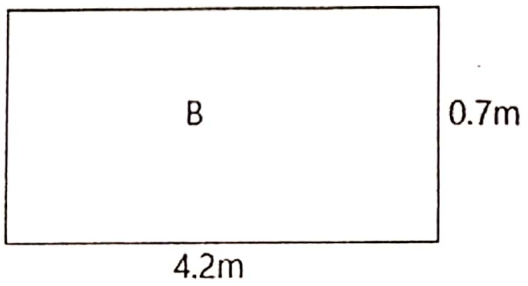
a) Find the percentage of men **(3 marks)**

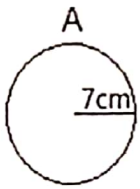
b) How many women attended the party? **(2 marks)**

30. a) Our lessons start at 08:30hrs every day. Change the time 12 hour clock. **(2 marks)**

b) The teacher's meeting started at 09:30 hrs. and ended at 1:30 pm. How long was the meeting? **(2 marks)**

31. Below is a rectangular sheet of metal (B) which is to be cut into circular pieces (A) of radius 7cm. Use it to answer the questions that follow





a) How many circular pieces of A can be cut out of B? **(2 marks)**

b) Calculate the area of the sheet B that remained unused. **(3 marks)**

32. Abraham moved from town A to town C via town B at 80km/hr. Time used to move from town A to B was a half of what he used from town B to C. The distance between town A and town C is 480km. How far is town C from town B? **(5 marks)**

END