BMMK EXAMINATION BOARD

PLE SPECIAL SET 1 EXAMINATION, 2024

Knowledge Is The Best Weapon

MATHEMATICS

TIME ALLOWED: 2HRS 30 MINUTES

EMIS No..						Personal No.		
INDEX NO.								

CANDIDATE'S NAME: _____

CANDIDATE'S SIGNATURE: _____

SCHOOL NAME: _____

SUB-COUNTY/DIVISION: _____

Read the following instructions carefully.

1. This paper has two sections; **A** and **B**
2. Section **B** has 15 questions (60marks)
3. Answer **ALL** questions in section **A** and Section **B.** answer must be written in the Space provided.
4. All answers must be written using a blue Or black ball-point pen or ink. Only diagrams may be done in pencil.
5. Unnecessary alteration of work may lead to loss of marks
6. Any hand writing that cannot easily be read may lead to loss of marks

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

SECTION A

1. Work out: 45÷5

2. Find the next equivalent fraction of $\frac{5}{4}$

3. After selling a pair of shoes at sh 12,000. Amooti made a loss of sh 3000. Calculate Amooti's percentage loss.

4. Round off 59.684 to the nearest tenths.

5. The perimeter of a rectangular garden is 60 meters. Find the area of the garden if its width is 12 meters.

6. The baby woke up at 0045 hours. Express the time it woke up in 12hour clock.

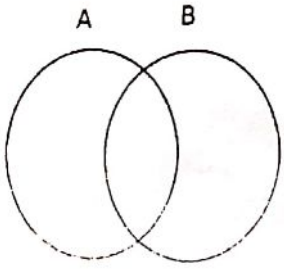
7. Given that $X=\frac{1}{2}$ and $y=\frac{2}{3}$. Find the value of (x+y).

8. 8 men can dig a garden in 15 days. How many more men are needed to dig the same garden in 10 days working at the same rate.

9. Using a dial workout 2-5= --- (mod 7)

10. A man was born in 1949. Express this year in Roman numerals.

11. On the Venn diagram below, shade AnB^{I}.

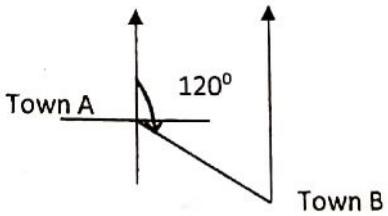


12. Subtract 2m-2 from 3(m+1).

13. Express 123_{five} to senary base.

14. Find the solution set for P: $6 \leq -2p < 10$.

15. The diagram below shows two towns A and B.



What is the direction of town A from town B?

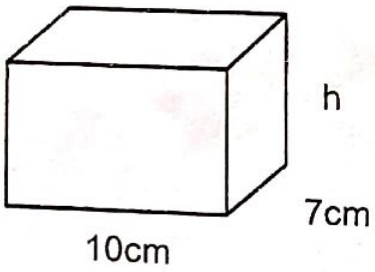
16. Kato had a rectangular piece of land measuring 0.7 meters by 0.4 meters. Calculate the area of the rectangular piece of land in square centimeters.

17. A fifty minutes lesson started at 11:45am. when did the lesson end?

18. Write 7.354 in scientific notation.

19. Anita wrote 6,008,349 on the chalkboard. Write this number in words

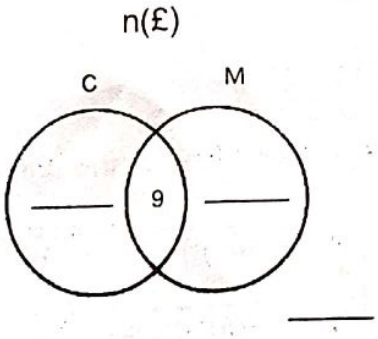
20. The capacity of the cuboidal below is o.56 litres. Calculate its height



SECTION B

21. In a village, 9 farmers grow both cassava (C) and maize (m), 30 farmers grow cassava Y farmers grow maize only and 2y+13 farmers grow none of the two crops.

a). Complete the venn diagram below



b). If the number of farmers who grow one type of crop is equal to number of farmers who grow none of the crops, find the value of y.

c. How many farmers who grow maize?

22. Ismail went to the shopping and bought the following items.
4 kgs of sugar at sh.4,000 per kg
500g of G. nuts at sh.5,000 per kg.
3kgs of rice at sh.2000 per $\frac{1}{2}$ kg.

32 oranges at sh 1200 per 4 oranges.

a). Calculate his total expenditure.

b). If he was given a change of sh. 2400. How much did he go with?

23. The table below shows the age of the pupils in p.6 class.

Age (years)	14	x	10	8
Number of pupils	2	10	4	4

a). If the mean age of the pupils is 11years, find the value of x.

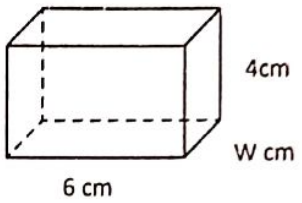
b). Calculate the range of their ages.

24. The size of interior angle of a regular polygon is one and a half times the exterior angle.

a) Find the number of sides of the polygon.

b) Calculate the sum of the interior angles.

25. Below is a cuboid. Study it carefully and use it to answer the questions that follow.



a) Find the value of w if the total length of all the edges is 52cm.

b). Calculate its total surface area.

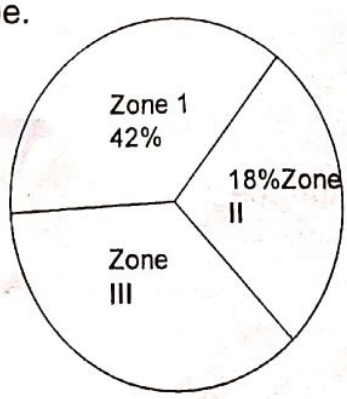
26. The numbers 3, 5, 4 are in random order to form a three-digit number. No digit is repeated in the number formed.

i) Write down the probability space for all the numbers formed.

ii) Find the probability that the number formed is not odd.

27. A total of 1200 exercise books is to be shared by 4 classes; 4A, 4B, 4C and 4D. Class 4A is given $\frac{1}{3}$ of the books; of the remainder $\frac{2}{5}$ is to go to 4B. The other two classes share the remainder with 4C getting 60 more books than 4D. Find the fraction of the total number of books obtained by 4D.

28. The pie chart below shows the number of people living in three-zones in a certain village.



a) If the number of people living in zone III is 240, find the population of the village.

b) Find the number of people who live in zone I.

29. Mary is five years younger than John and Peter is twice as old as Mary. The sum of their ages is 49 years. Find Peter's age.

30. The mean mass of 5 pupils is 35kg. The total mass of 3 pupils is 115 kg. If the remaining two pupils weigh the same, what is the mass of each?

31. Mr. musoke used poles of diameter 0.5m each placed at intervals of 4.5m to fence his garden as shown in the figure below

a). How many poles did Mr. Musoke use to fence the flower garden?

b). If each pole costs sh. 1,500 and Mr. Musoke was given a 5% discount on the total cost of all the poles, how much did he pay?

32. Nsereko started a journey at town P. He moved a distance of 280km in the north-east direction to town Q From town Q, he moved a distance of 160km. southwards to town R.

a) Using a scale of 1cm to represent 40km, draw an accurate diagram. Showing Nsereko's route.

b) Determine the shortest distance (route) between town P and R in Kilometres.