OUTREACH SCHOOLS EXAMINATIONS BOARD
PRE-MOCK SERIES II
2024
MATHEMATICS
Time Allowed: 2hours 30 Minutes

Random No.						Personal No.		

Candidate's Name: ....

Candidate's Signature: ....

School Name: ....

District No:

Read the following instructions carefully:

1. This 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 the working for both sections A and B must be shown in the spaces provided.

5. All working must be done using a blue or blackball point pen or ink. Any work done in pencil will NOT be marked except drawings and diagram.

6. Unnecessary changes in your work and handwriting that cannot be easily read may lead to loss of marks.

7. Do not fill anything in the table indicated **"For examiners' use only"** and the boxes inside the question paper.

OUTREACH SERVICES **KAMPALA-(U)**

((((**OUTREACH SCHOOLS EXAMINATIONS BOARD(OSEB)-KAMPALA**))))

LOCATED AT **6MILES GAYAZA ROAD-KLA**   (*QUALITY SERIES 2/6*)

TEL: 0742845900 / 0774787978

SECTION A: 40 MARKS
Answer all questions in this section
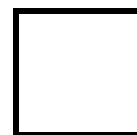*Questions 1 to 20 carry two marks each*

1. Workout: 126 − 16.

2. Given that set A = {a,b,c,d,e} and set B = {b,e,a,d}. Find ∩ $(A \cap B)$

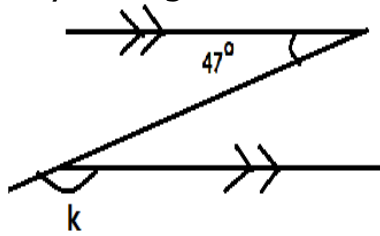3. Write "Thirteen thousand fourteen" in figures.

4. Find the next number in the sequence

    1,   8,   27   ,64, _____,

5. What is 25% of 200kg of meat?

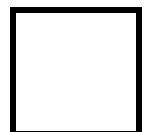6. Study the figure below. Calculate the size of the angle marked k.
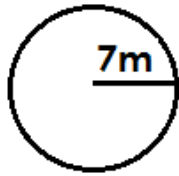

7. Simplify: $^-4 - 7$

8. The mean weight of 12 girls is 25kg. find the total weight of 12 girls.

9. A pilot told passengers that they were landing at 1510 hrs. Express this time in the 12 hour clock.

10. The cost of 4kg of sugar is sh.14,000. How many kg can one buy with sh.10,500?

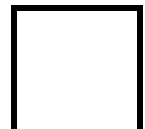11. Workout the total distance round the figure below.

12. Simplify: $2a - 2b + 3a + 66$

13. A set has 31 proper subsets. How many elements does it have?

14. Find the product of the value of 2 and 5 in numeral 2945.

15. What number has been expanded to give:

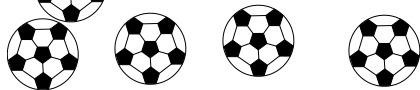$(4 \times 10^4) + (2 \times 10^2) + (3 \times 10^0) + (2 \times 10^{-1}) + (3 \times 10^{-2})$

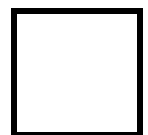16. Prime factors of 18 are $\{y, 3_1, 3_2\}$ Find the value of y.

17. Find the simple interest on sh.120,000 deposited in a micro finance that gives an interest rate of 5% per year for 6 months.

18. A regular polygon has its exterior angle measuring 72°. How many sides does the polygon have?

19. If represents 8 balls, how many balls are shown below.

20. Given that the previous metre reading of a school was 0010200. If the current metre reading is 0010249, how many units did the school use?
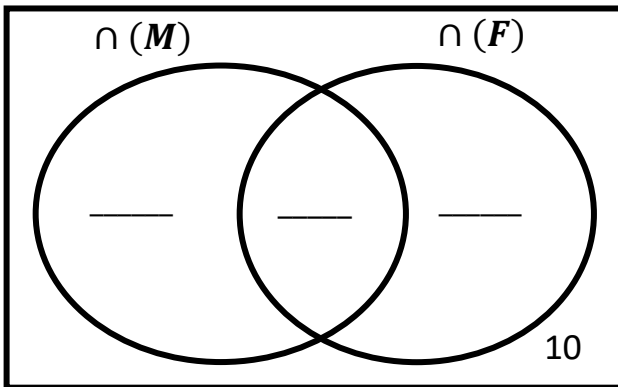
21. In a class of 75 pupils, (Y+5) pupils eat meat (M) only, Y eat both Meat and Fish (F), 40 eat Fish only while 10 eat neither of the two foods.
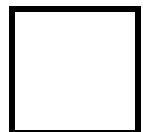
(a) Complete the Venn diagram below. (3 marks)

∩ (∑) = **75**

∩ (**M**)   ∩ (**F**)

———   ——   ———

10

(b)   How many pupils eat meat? **(2 marks)**

22. **Given the numeral 37808 below**

a) Write the numeral in words. **(2 mks)**

b) Find the difference between the place value of 7 and the place value of 0. **(2 mks)**
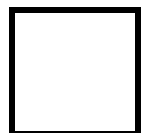
c) Expand the numeral using place values. **(2 marks)**

23. a) Write 60000 in scientific notation. **(2 mks)**

b) Solve: $2^x \times 3 = 12$ **(3 mks)**

24. The sum of three consecutive even numbers is 66. If their median in h. Find the numbers. **(5 marks)**

25. a) Simplify: $\dfrac{0.45 \times 0.4}{0.009}$ **(2 marks)**

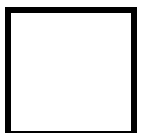   b) Express 0.1818……. as a common fraction.   **(2marks)**

26. a) With the help of a pair of compasses, a ruler and a pencil only, construct triangle ABC where $\overline{AB}$ = 7cm, angle BAC = 60° and angle ABC = 45°
                                                                                (4 marks)

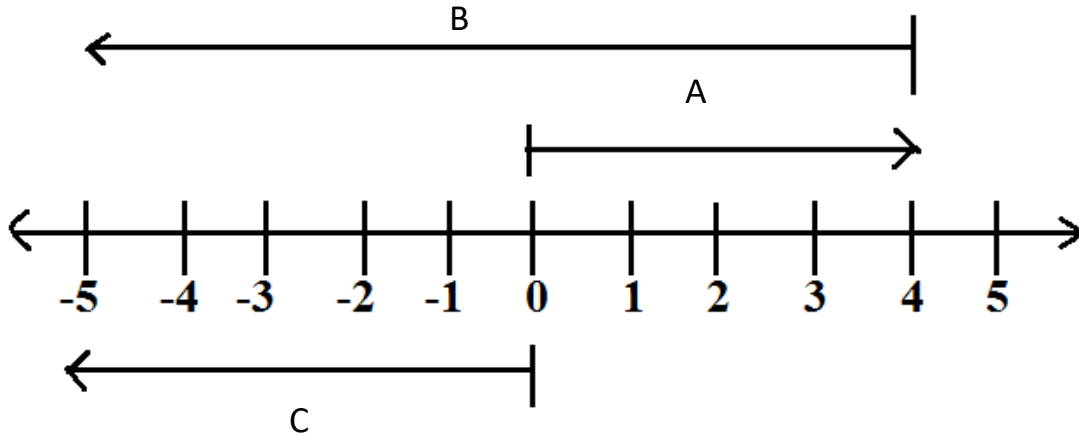   b) Measure $\overline{AC}$ **(1 mark)**

27. **Study the number line below**

a) Write the integers represented by arrows. **(1 mark only)**

C = _____

B = _____

A = _____

b) What is the additive inverse of B? **(2 marks)**
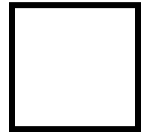
c) Subtract integer B from A? **(2 marks)**

28. **The table below shows marks scored by a P.7 group of pupils in a certain test.**

Marks	40	50	80	90
No. of pupils	2	1	3	4

a) How many pupils did the test? **(1 mark)**

b) Find the modal mark **(1 mark)**

c) Calculate the average mark. **(1 mark)**

29. a) The District Education Officer started driving at 7:30a.m from Masaka and reached Mbarara at 10:00a.m covering a distance of 260km. At what speed was he driving?   **(3 marks)**

b) Convert 20m/sec to km/hr.   **(2 mks)**

30. **Complete the shopping table below.**

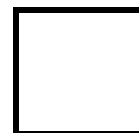| Item	Quantity	Unit cost	Amount
Posho	_____ kg	Sh.2000	Sh.8000
Beans	2 ½ kg	Sh.1600	Sh._____
Rice	3kg	Sh._____	Sh.9000
Salt	500g	Sh._____	Sh.4000
TOTAL EXPENDITURE			**Sh.**_____

(5 marks)

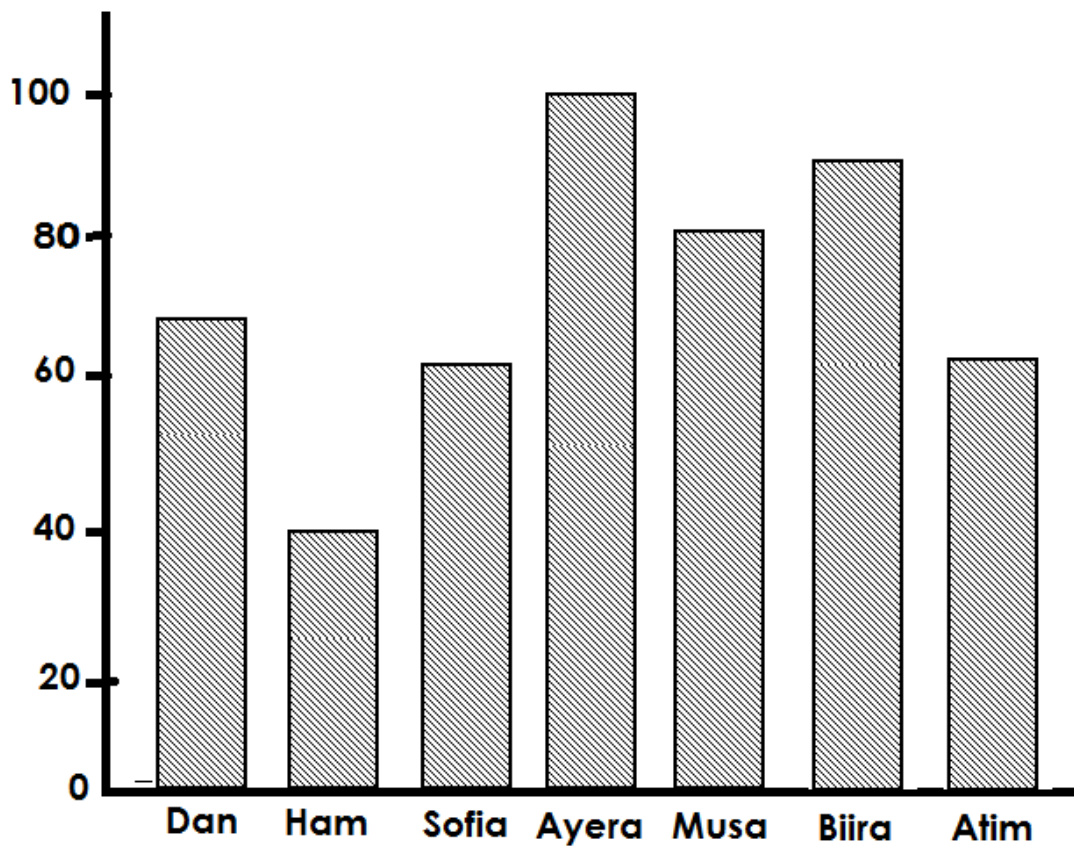31. a) A book costs twice as much as a pen. Find the cost of a pen if both cost sh.2250. **(3 marks)**

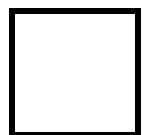b) Solve for x: $3x + 4 = 5x - 4$ **(2 marks)**

32. The graph below shows the marks lost by pupils in a maths test.

a) Find the range of their marks scored. **(2 marks)**

b) Calculate the mean score of Sofia, Musa and Ham. **(3 marks)**

END