THE JUBRA EDUCATIONAL SERVICES - KAMPALA

(PRE-PLE SET 1 2023)

MATHEMATICS

Time Allowed: 2hours 15minutes

	Random No.						Personal No.		
Index No.									

Candidate's Name.....

Candidate's Signature.....

School Name .....

District / Municipality.....

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO

Read the following instructions carefully

1. This paper is made up of two sections **A** and **B**.
2. Section **A** has **20** questions **(40 marks)**
3. Section **B** has **12** questions **(60 marks)**
4. Answer **ALL** questions. **All** answers to both section 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.
6. Unnecessary alteration of work may lead to loss of marks.
7. Any handwriting that cannot easily be read may lead to loss of marks.
8. Do not fill anything in the boxes indicated For Examiner's use only

FOR EXAMINERS' USE ONLY		
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Located at Modern Building Room F4, Ist Floor and Karobwa tower room F2:05
Tel: 0200-909-858 , 0703-192727, 0783-867736

SECTION A

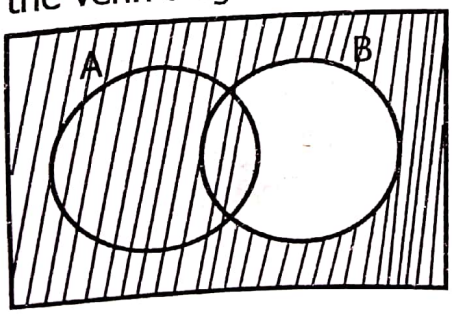
1. Work out 654 + 23

2. Write "Forty eight thousand fourteen" in figures.

3. Express 00 40hrs in a 12 hour clock system

4. Change 6.52tonnes to Kilograms

5. Describe the unshaded region in the venn diagram below.



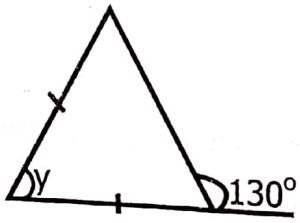
6. Simplify: $-4 - {}^{+}5$

7. Express $12\frac{1}{2}\%$ as a ratio.

8. Given that a=2 b= $1\frac{1}{2}$, Find the value of a:b 3

9. John bought a pig and sold it after sometime at sh. 80,000, If he made a loss of sh. 25,000, How much did he buy it.

10. Find the size of angle y in the figure below



11. Find the next two numbers in the sequence below
1, 2, 10, 37,_____

12. Twelve men can do a piece of work in 6days. How many more men are required to do a similar piece of work at the same rate in 4 days?

13. Work out the median of
-4, -10, 5 ,0 and $^{+}3$

14. How many packets of 200 grammes can be obtained from 2.6Kilogrammes

15. Jeremiah withdrew bank notes numbered consecutively from KB094558 To KB094647 each worth five thousand shillings. Calculate the amount of money he wihdrew.

16. With the help of a ruler, pencil and a pair of compasses only. Construct an angle of 135^{0}

17. Set P={a, b ,c, d, e}
Q = {a, e, i, o, u}
Find n(P-Q}

18. Solve:
$2^{3n} \div 2^{n} = 2^{4}$

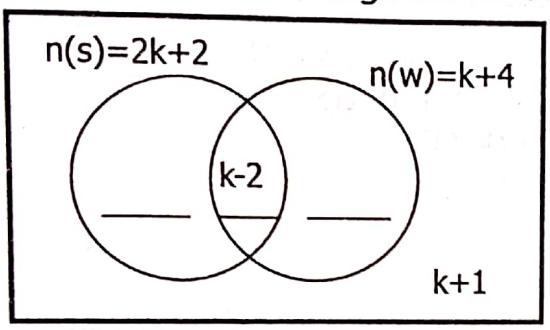
19. Work out: $\frac{0.36}{0.4 + 0.5}$

20. The temperature at the top of the mountain was $-13^{\circ}C$ and it rose to $-4^{\circ}C$. By how many degrees did it rise?

SECTION B

21. At a birthday party attended by some guests, (2k+2) guests drank soda (s), (k+4) guests drank water (w), (k-2) guests took both kinds of drinks while (k+1) guests drank none of the two drinks.

a) Use the above information to complete the venn diagrams below.



(2mrks)

b) If 15guests drank only one kind of drinks, how many guests drank none of the two drinks?

(3mrks)

22a) Workout the $1001_{two} - 111_{two}$

(2mrks)

b) Find the value of the unknown base $2001_{p} = 127_{six}$

(3mrks)

23. Masaka is 240km away from Kalungu. A motorist left Masaka to Kalungu at an average speed of 96km/h. How long did he take on his way? (2mrks)

b) If he returned to Masaka using the same route at a speed of 160km/h, Calculate his average speed.

(3mrks)

24. Solve for k

$$\frac{2.4 \times k = 6}{0.8 \times 0.18}$$

(3mrks)

b) Express 0.2333.....as a simplified fraction.

(2mrks)

25. Using a pair of compasses, a ruler and a sharp pencil only, construct a right angled trapezium ABCD where $\overline{AB}$ = 7cm, <BAD = 90^{o} <ABC = 60^{o} $\overline{AD}$ = 4cm.

(5mrks)

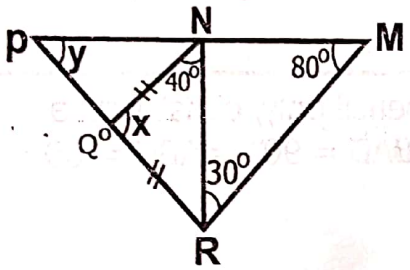
b) Measure length DC in centimetres. (1Mark)

26) Aejo bought 800 oranges at sh. 400 each. She sold 450 oranges of them in heaps of 5 at sh 3000 each heap. She grouped the remaining oranges in heaps of 7 and sold each heap at sh. 5000 each heap.

a) Find the total amount after selling all the oranges? (3mrks)

b) Calculate her percentage profit? (3mrks)

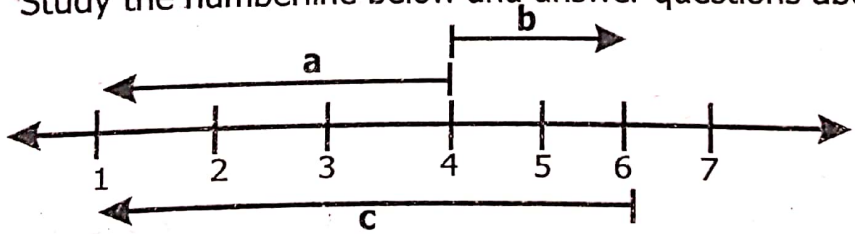
27. Study the figure below and answer the questions that follow.



a) Find the value of x (2mrks)

b) Workout the size of angle Y (2mrks)

28. Study the numberline below and answer questions about it.



i) Write down the integer shown by

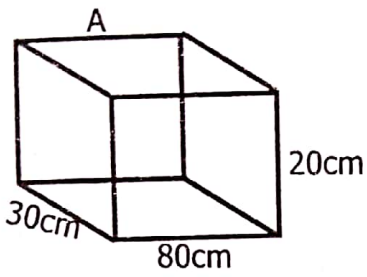
a = _____

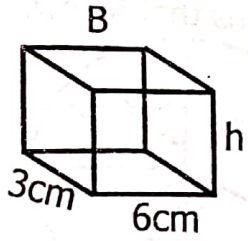
b = _____

c = _____ (3mrks)

ii) Write a mathematical statement for the above numberline. (1mark)

29) In the diagrams below, 520 small boxes of size B were packed in a big box of size A up to the last layer.

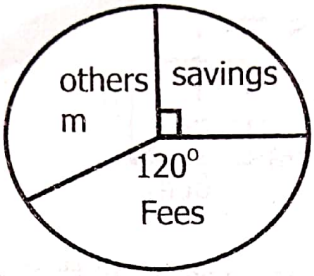




a) If the volume of the empty space left after packing all the possible small boxes was $1200cm^3$. Find the number of layers in box A after packing all the possible small box B. (5 marks)

30. A father is 30years older than his son. In 7years ago, the ratio of their age was 5:2. How old is each now? (5mrks)

31. The piechart below shows how Mrs Jane spends her monthly salary. Use it to answer questions that follow.



a) Find the value of m in degrees. (2mrks)

b) If she earns sh 480,000 how much does she save. (2mrks)

c) Express the portion for others as a simplified fraction. (1mrk)

32. How many revolutions does a wheel of a car of diameter 70cm take to cover a distance of 44 meters? (Use $\pi = \frac{22}{7}$) (4mrks)

********END*******

Good Luck