JACARANDAS JUNIOR SCHOOL

PRE - PLE EXAMINATION SET II 2022

PRIMARY SEVEN

MATHEMATICS

Time allowed: 2 hours 30 minutes

NAME: _____

INDEX NUMBER | | | | | | | | | |

SIGNATURE: _____

Read the following instructions carefully.

1. This paper has **two** Sections: **A** and **B**.
2. Section **A** has 20 answer questions (40 marks)
3. Section **B** has 12 questions (60 marks)
4. Answer **ALL** questions. Answers to both sections must be written in the spaces provided.
5. All answers must be written using a blue or black ballpoint pen or ink Diagrams should be drawn in pencil.
6. Unnecessary alteration of work may lead to loss of marks.
7. Any handwriting that cannot be easily read may lead to loss of marks.
8. Do not fill anything in the box indicated for examiner's use only.

FOR EXAMINERS USE ONLY		
QN. NO.	**MARK**	**SIGN**
1 – 10		
11 – 20		
21 – 22		
23 – 24		
25 – 26		
27 – 28		
29 – 30		
31 – 32		
TOTAL		

SECTION A (40 MARKS)

1. Express: 0.00796 in scientific notation.

2. Work out the quotient of 14 and 13.

3. Find the next number in the sequence 2, 2, 4,6,10,16,___

4. Find the square of 36.

5. Workout: -3- +5 using a number line.

6. If today is Saturday, what day of the week was it 124 days ago?

7. Find the mean of 2x, 14, 6x and 6.

8. Solve and find the solution set for $3 \leq 2x - 1 \leq 9$

9. Express 54km/hr in metres per second.

10. A wheel has a radius of 14cm, what distance does it cover in 50

revolutions?

11. Work out: $\frac{1}{4} - \frac{1}{2} + \frac{1}{3}$

12. Express 12:40p.m in 24 hour clock system.

13. Decrease 160 by $12\frac{1}{2}\%$

14. Find the perimeter of a quadrant whose radius is 14cm.

(use $\pi = \frac{22}{7}$)

15. 5 men take 6 days to do a piece of work. How many more days will 3 men take to do the same piece of work working at the same rate?

16. Without division, show which of the numbers 7050 and 1233 is divisible by 9.

17. Express $\frac{2}{3}$ to $\frac{5}{6}$ as a simplified ratio.

18. In the space below, construct an angle of $67\frac{1}{2}^{o}$ using a sharp pencil, ruler and a pair of compasses.

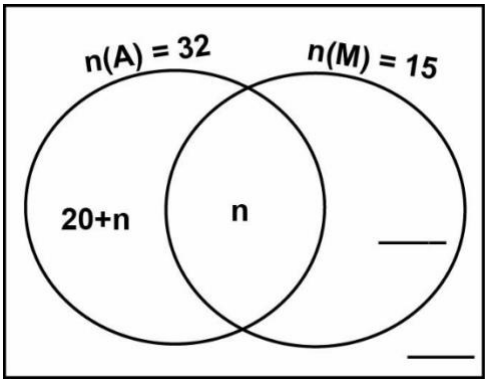
19. Write 49.123 as a word numeral.

20. Work out the reciprocal of 1.3.

SECTION B (60 MARKS)

21. In a class, 32 pupils like apples (A), n pupils like both apples and Mangoes, 15 pupils like mangoes (M) and the number of pupils who do not like any of the two fruits is twice the number of pupils who like both fruits.

(a). Complete the Venn diagram below. (2 mks)



(b). Find the value of n. (2 mks)

(c). Find the number of pupils who do not like any of the two types of fruits. (1 mk)

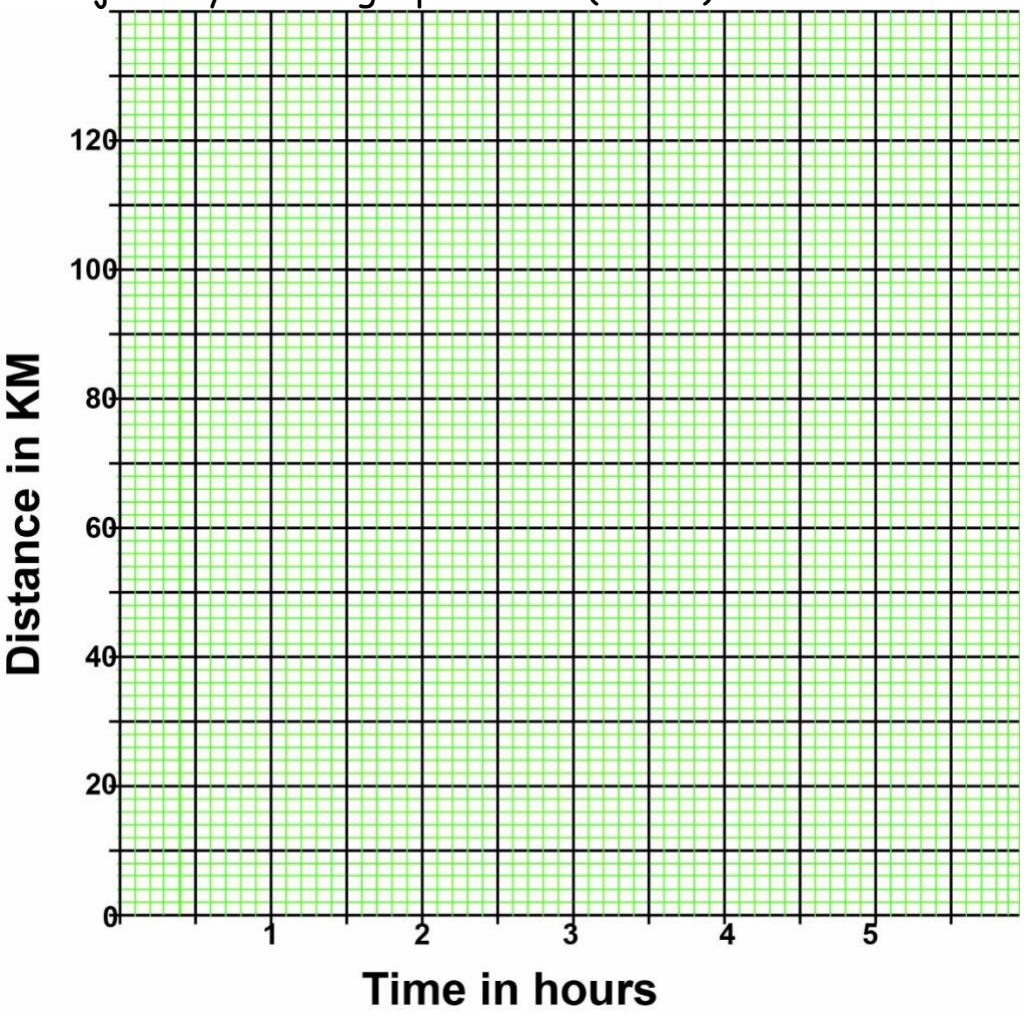
22. Black sells $\frac{1}{2}$ of the milk collection from his farm, he gives $\frac{2}{5}$ of the remainder to his parents and remains with 9 litres of his family. How many liters of milk does he collect daily? (4 mks)

23. (a). Solve: (3x-4)- (x+6) = 0 (3 mks)

(b). Musa is three times as old as his son Hassan. In 5 years' time their total age will be 46 years. How old is his son?

(3 mks)

24. A cyclist left town K for M which is 100km away. He rode for $1\frac{1}{2}$ hrs at a steady speed of 40km/hr to town L. He rested at L for $\frac{1}{2}$ hr. He resumed his journey at a steady speed of 20km/hr for 2 hrs. Draw a graph to show his journey on the graph below. (3 mks)



(b). Find the cyclist's average speed for the whole journey. (2 mks)

25. The rates at which a bank buy and sells United states dollar and Kenya shillings are given in the table below:

Currency	Buying	Selling
1USD	Ug.Shs.2800	Ug.Shs.2900
1K.Shs	Ug.Shs.28	Ug.Shs.30

(a). If a trader has 300 dollars and 500 K.shs, how much money in Ug.shs can he get from the bank? (3 mks)

(b). Peter has UgShs 1,160,000. How many US dollars can he get from the bank? (2 mks)

26. Okudi and Wekobi in a transport business shared their profit in the ratio 0.2 : 0.5 respectively.

(a). Express the ratio in the simplest form. (2 mks)

(b). If they realized a profit of shs.2,100,000, how much more did Wekobi get than Okudi? (3 mks)

27. A fruiterer sold 60, 35, 40, 28, 42 and 35 mangoes in six days.

(a). What is the modal number of mangoes sold? (1 mk)

(b). Workout the mean number of mangoes sold. (2 mks)

(c). By the end of the seventh day, the mean number of mangoes sold was 44. How many mangoes were sold on the seventh day?(2 mks)

28. Using a ruler, a pencil and a pair of compasses only construct an isosceles trapezium ABCD such that AB = 7cm, AC = 2.5cm and BDC = 120^0. Drop a perpendicular from D to meet AB at K. Measure line DK (5 mks)

29. A mother bought the following items;

- 2 pieces of bathing soap at sh. 8500/=
- 2 tins of nomi at sh 2500 a tin
- 3 knives at sh 600 per knife
- 3 spoons at sh 600 per spoon

(a). Find her total expenditure. (3 mks)

(b). If she was given a change of sh. 4425/=, express her total expenditure as a percentage. (2 mks)

30(a). A teacher bought some pens. He put them in groups of nines and 7 pens remained. When he put them in groups of 8, only 4 pens were left but when he put them in groups of threes, only 1 pen remained. How many pens did the teacher buy?

(3mks)

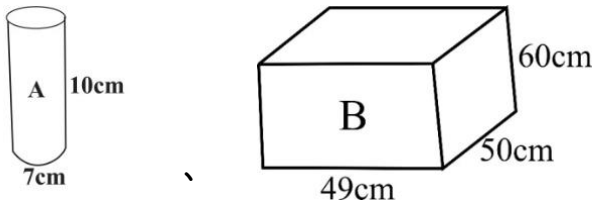
(b). What is the least number of cows such that when divided by 4 people, 3 cows remain. When divided by 8 people, 7 cows remain?

(2 mks)

31. In a basket, there are 8 oranges, 17 mangoes and 11 avocados. Using a radius of 4cm, draw an accurate pie chart showing this information.

(5 mks)

32. The cylindrical tins (A) are to be packed in to the box (B) as shown below:



(a). How many tins can be packed into the box? (2 mks)

(b). Find the volume of the space not occupied after packing the tins into the box. (3 mks)

END