MORTAR EXCEL EXAMINATIONS COMMITTEE
BEGINNING OF TERM I 2024
P.7 MATHEMATICS
Time allowed: 2 hours 30 minutes

Random No.						Personal No.		

Candidate's Name: .....

Candidate's Signature: .....

District ID NO.

Read the following instructions carefully:

1. This paper is made up of two Sections: A and B.
2. Section A has 20 questions (40mks) and Section B has 12 questions (60mks)
3. All answers must be written using a blue or black ball-point pen or ink but only diagrams must be drawn in pencil.
4. Unnecessary alteration of work may lead to loss of marks.
5. Any handwriting that cannot easily be read may lead to loss of marks.
6. Do not fill anything in the boxes indicated **"It is for Examiners' use Only".**

FOR EXAMINERS' USE ONLY

FOR EXAMINERS' USE ONLY		
Qn No.	Marks	Examiner's No.
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 23		
24 - 26		
27 - 29		
30 - 32		
TOTAL		

Organised by:
Mortar Excel Examinations Committee Entebbe.

Mortar Excel Examinations Committee Entebbe.
Tel: 0757-713720/ 0783-185533/ 0782-967838/ 0782-357828

SECTION A(40Mks)

1. Add:
$$\begin{array}{r} 4\ 8\ \text{kg} \\ +\ 3\ 8\ 0\ \text{kg} \\ \hline \\ \hline \end{array}$$

2. Round off 47.69 to the nearest tenths.

3. Collect like terms and simplify:
$2m + 10k - 7k + m$

4. Express 10 in binary base.

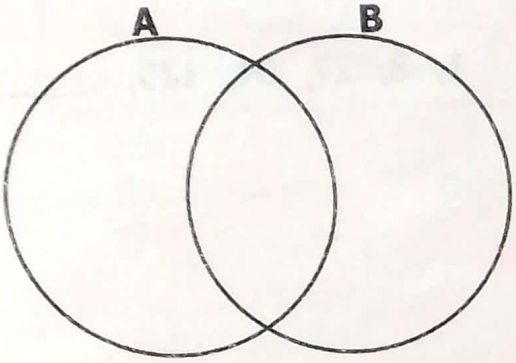
5. A rope is 5.07 metres long. How long is it in centimetres?

6. A dozen of bic pens cost sh.9600. How much is paid for 5 such pens?

7. Use the distributive property to work out .

(217 x 12) + (12 x 83)

8. Shade the complement of A n B.



9. There are 150 candidates. The ratio of girls to boys is 8:7 respectively. Find the number of boys.

10. Use the digits 6, 0, 4, 9 to form the largest and least 4 digit numerals.

11. The diameter of a circle is 56cm. Calculate its circumference.

12. Divide 412 by 3.

13. A shirt was bought at sh. 40,000. If on selling it, a profit of sh. 8000 was made. Calculate the percentage profit.

14. Express 68084 in words.

15. Use your pair of compasses to construct 30^0 at X.

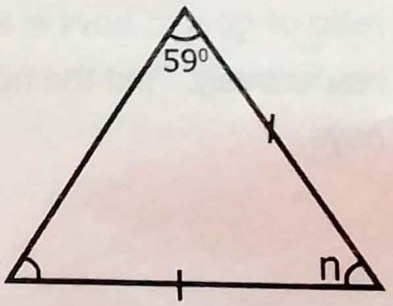
X

16. Given that H = {a, b, c}. List down all the subsets of H.

17. Determine the next numeral in the sequence:

1, 8, 27, 64, 125, _____.

18. Calculate the size of angle labelled by n.



19. Apolot is 4 years older than Obol. Find Obol's age if the sum of their ages is 32 years.

20. The price for a kg of meat decreased by 5% from sh.16000 Find its new price.

SECTION B (60Mks)

21a) Express $^{3}/_{4}$ as a decimal. (02mks)

b) Simplify: $\frac{2.1 \times 0.08}{0.14}$ (03mks)

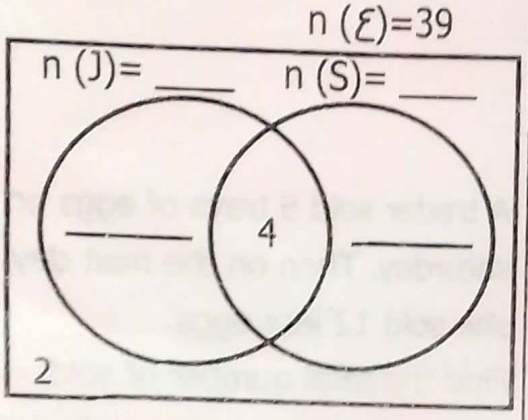
22. A trader sold 5 trays of eggs on saturday. Then on the next day, she sold 12 less eggs.

a) Find the total number of sold eggs in the two days. (03mks)

b) How much did she get on sunday if each egg was sold at sh.500? (02mks)

23. At a wedding meeting attended by 39 people, 22 took juice (J), 3t took only soda, 4 drank both yet two took other drinks.

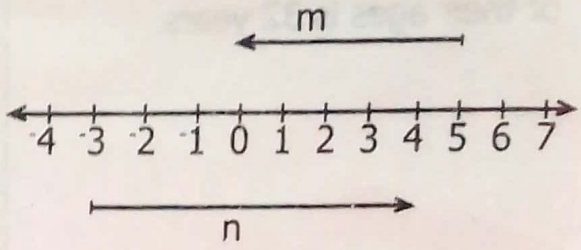
a) Complete the venn diagram. (02mks)



b) Find the value of t. (02mks)

c) How many people took only one type of drink? (02mks)

24a) Which integers are represented by letters m and n? (02mks)



m = _____

n = _____

b) Find the product of m and n. (02mks)

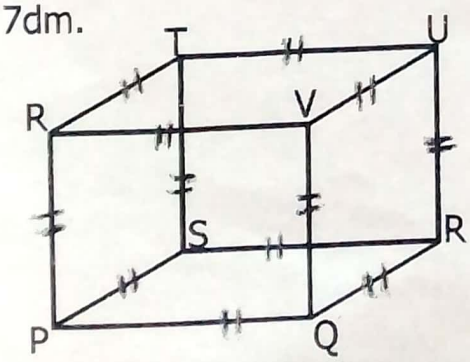
c) A 40 seator costa set off from Entebbe with 29 passengers. On reaching Zana, 4 went out while 10 boarded it and proceeded to Kampala. How many passengers reached Kampala? (02mks)

25. Given that $X = \{2_1, 2_2, 5_1\}$ and $Y = \{2_1, 2_2, 3_1, 5_1\}$

a) Determine the HCF of X and Y. (02mks)

b) Bells ring at intervals of 40 minutes and 30 minutes in a school. Every after how many hours do they always ring together? (03mks)

26. The length of the prism PQ is 7dm.



a) Draw out its net. (01mk)

b) Find the volume of this prism. (02mks)

c) Calculate the total length of its edges. (02mks)

27. Add: $3\ 1\ 2_{five}$
$+\ 4\ 2_{five}$ (02mks)

b) Which numeral has been expanded? (02mks)

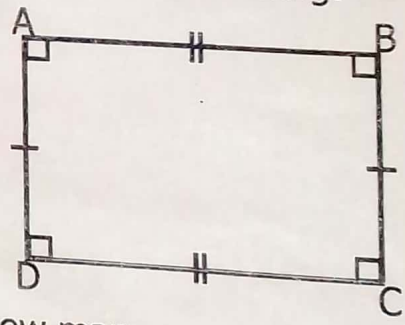
$(4x10^4)+(6x10^2)+(7x10^1)+(4x10^0)$

28. A class has a total of 64 pupils. Of these $12^1/2\%$ are boys while the rest are girls.

a) Express $12^1/2\%$ as a common fraction. (02mks)

b) How many more girls than boys has this class? (03mks)

29. The rectangular cloth below is 6m wide and 8m long.



a) How many square metres has it? (02mks)

b) Calculate the length of AC. (02mk)

30i) With the help of a pair of compasses and a ruler construct a triangle PQR in which PQ = 8cm, $\angle$PQR = 90^0 and QR = 6.4cm. (03mks)

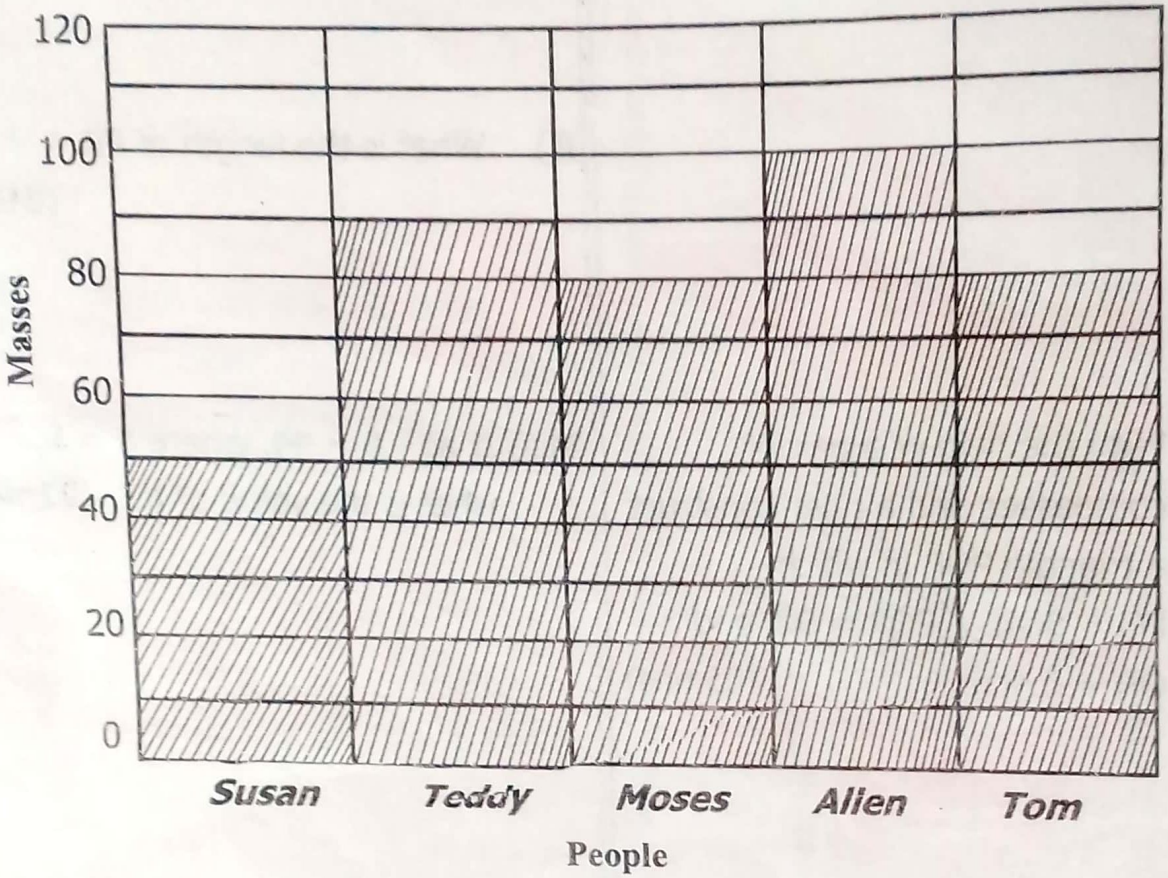
ii) Measure the size of angle P = (01mk)

iii) What is the length of PR = (01mk)

31a) If ab - 6 = 44, where a = 5, what is the value of b? (02mks)

b) Use the lattice method to multiply out: 346 by 54. (02mks)

32. ***The bar graph shows masses of some people at the bar. Use it to answer the questions which follow.***



Questions

a) What is the mass of the lightest lady? (01mk)

b) Find the median of the masses. (02mks)

c) Work out the average. (02mks)

d) Identify the modal mass. (01mk)