MITYANA MUNICIPAL ACADEMIC COMMITTEE

P. L. E. MOCK EXAMINATION 2024
MATHEMATICS

Time: Allowed 2 Hours 30 Minutes

Random No.
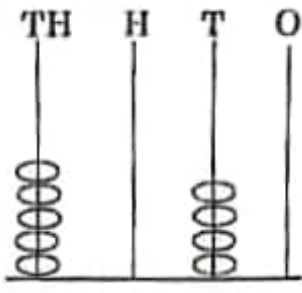
Personal No.

Candidate's Name: _____ Signature: _____
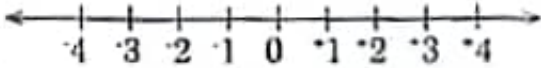
DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

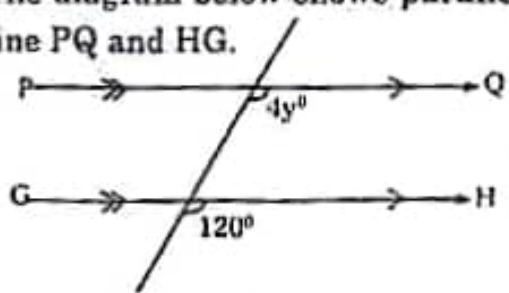### READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

1. Do not open this booklet until you are told to do so.
2. This paper comprises two sections A and B.
3. Section A has 20 questions (40 marks) Each question carries 2 marks.
4. Section B has 12 questions (60 marks)
5. The paper has 12 pages altogether.
6. All answers to both sections A and B MUST be written in the spaces provided
7. All answers must be written in blue or black ballpoint pen or ink.
8. No calculators are allowed in the examinations room.
9. Diagrams and Graph work must be done in pencil strictly.
10. Un necessary alteration of work will lead to loss of marks.
11. Any handwriting that cannot easily be read may lead to loss of marks.
10. Do not fill anything in the boxes indicated "FOR EXAMINERS USE ONLY" and those inside the question paper.
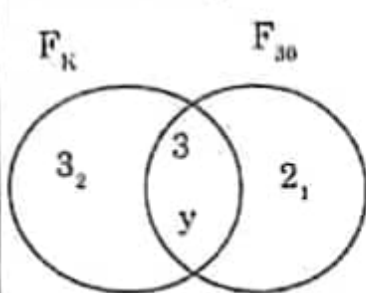
FOR EXAMINER'S USE ONLY		
QN. No.	MARKS	SIGN
1 – 5		
6 – 10		
11 – 15		
16 – 20		
21 – 22		
23 – 24		
25 – 26		
27 – 28		
29 – 30		
31 – 32		
TOTAL		

SECTION A 40 marks.
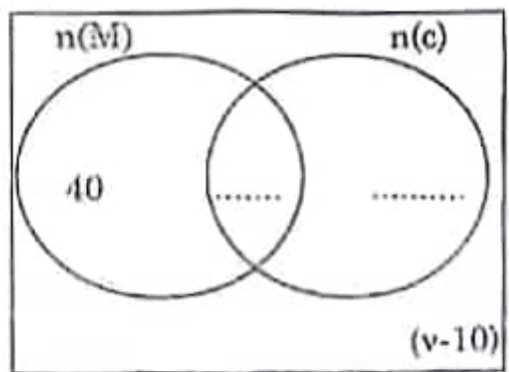
1.	Add: 176 + 23	2.	Write the number represented on the abacus in words. TH H T O
3.	Simplify: 11bk - 6xy + bk - 2xy.	4.	Nsibuka bought 19 mangoes in the market. Represent the mangoes bought using tallies.
5.	Round off 69.764 to the nearest tenths.	6.	Given that set m ={a, v, d, e, f, k} and set L = {v, k, a } Represent the above information on the Venn diagram.

7.	Given that two numbers are in the ration of 3:5. If the LCM of the two numbers is 90. Find their GCF.	8.	Using a ruler and a pair of compasses, construct an angle of 30°.
9.	Madam Joyce bought 8 plates at Shs. 800 for every 4 plates . Find her total expenditure on all the plates.	10.	Work out -7-·4 on the number line shown.

For question 10:

$$\xleftarrow{\hspace{1cm}}\;\;{}^\cdot4\;\;{}^\cdot3\;\;{}^\cdot2\;\;{}^\cdot1\;\;0\;\;{}^\cdot1\;\;{}^\cdot2\;\;{}^\cdot3\;\;{}^\cdot4\;\;\xrightarrow{\hspace{1cm}}$$

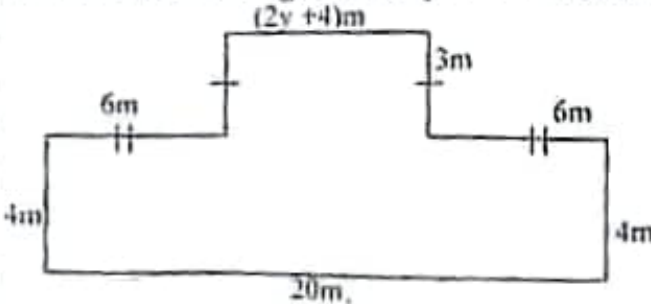|			
11.	Solve $3(x - 4) = 9$	12.	Simplify: $1\frac{1}{6} + \frac{1}{5}$

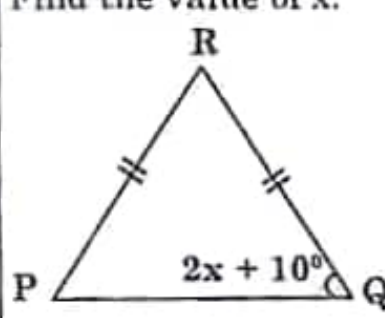| 13.	The marking of mocks started on Thursday and it took 13 days. On which day of the week did the marking end.	14.	If a dice is tossed once. Find the probability that an even prime number shows up?
15.	Study the number sequence and find the value of K. 4, 6, 9, 14, 21, 3k + 2.	16.	The diagram below shows parallel line PQ and HG. Find the value of y.
17.	The briefing of candidates started at 9:45am and ended at 1:15pm. How long was the briefing?	18.	A length of metal rod 77cm was curved to form the net ball metal ring. Find the diameter of the metal ring.

19.	The Venn diagram below shows the prime factors of K and 30. If the GCF of F_K and F_{30} is 15. Find the value of y	20.	Subtract: 1 0 3 four $\underline{\quad - 2\ 2\ \text{four} \quad}$

F_K F_{30}

3_2 3 2_1

y

SECTION B (60 marks)

21.	In a village, 40 farmers grow maize only (M), (v - 6) grow both maize and cassava, (v -10) do not grow any of the two crops and (v +12) grow cassava only (c).
a)	Use the information above to complete the Venn diagram below.

n(M)   n(c)

40   ....

(v-10)

$\boxed{\textit{2 marks}}$

b)	Given that the number of farmers who grows maize only is twice those who grow none of the two crops, find the value of V.

$\boxed{\textit{1 mark}}$

22.	Simplify: $\dfrac{18.4 + 0.6}{21.3 - 17.5}$
	3 marks
b)	Express $0.2\overline{3}$ as rational number.
	2 marks

23. Mr. Kawere designed his piece of land as shown.

a)	Find the value of Y.	b)	If Mr. Kawere planted trees around his piece of land at the intervals of 2 metres, how many trees were planted.

24. a)	In the triangle below $\angle QPR = 70^0$, Find the value of x.	b)	Find the size of angle PRQ.

24. a) In the triangle below $\angle QPR = 70^0$, Find the value of x.

R

P — 2x + 10° — Q

2 marks

b) Find the size of angle PRQ.

3 marks

25. The distance from Mityana to Mubende is 120km. Mabirizi walked this distance in 4 consecutive days. Each day he walks 10km less than the previous day. Find the distance he walks every day.

26.	Solve the inequality $5 - 3y \leq 14$.
	[3 marks]
b)	Find the solution set for the above inequality.
	[2 marks]

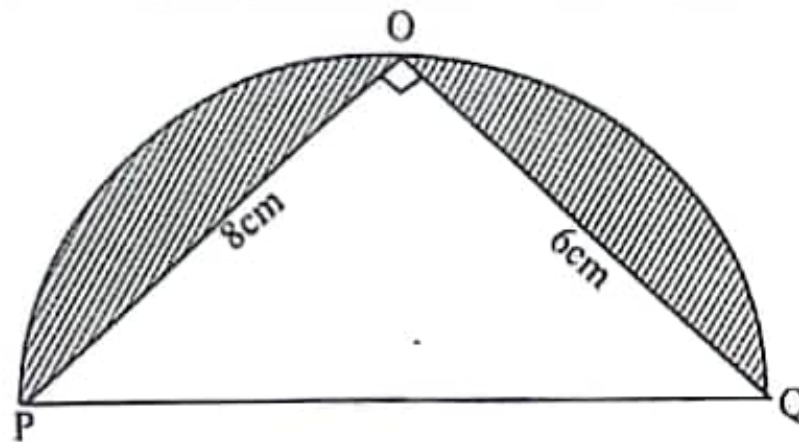| 27	Aunt Berna went shopping and bought the following. 5kgs of maize flour at shs. 2500 per kg. 4kgs of rice at Shs. 4000 per kg. 500g of onions at Shs.2000 per 250g. 2 bunches of matooke at Shs.9000.		
a)	Work out her total expenditure	b)	If she was offered a discount of 10%, how much did she pay?

28.	Using a ruler and a pair of compasses only, construct a quadrilateral PQRS where PQ = 6cm, $\angle PQR = 45^0$, PS = 3cm. $\overline{QR}$ = 4cm and $\angle SPQ = 90^0$

4 marks

b)	Measure SR = ...cm

29.	Given the figure below, study and use it to answer the questions that follows.

a)	Find the length of line PQ
	(02 marks)

b)	Find the area of shaded part. (Use π = 3.14)
	(03 marks)

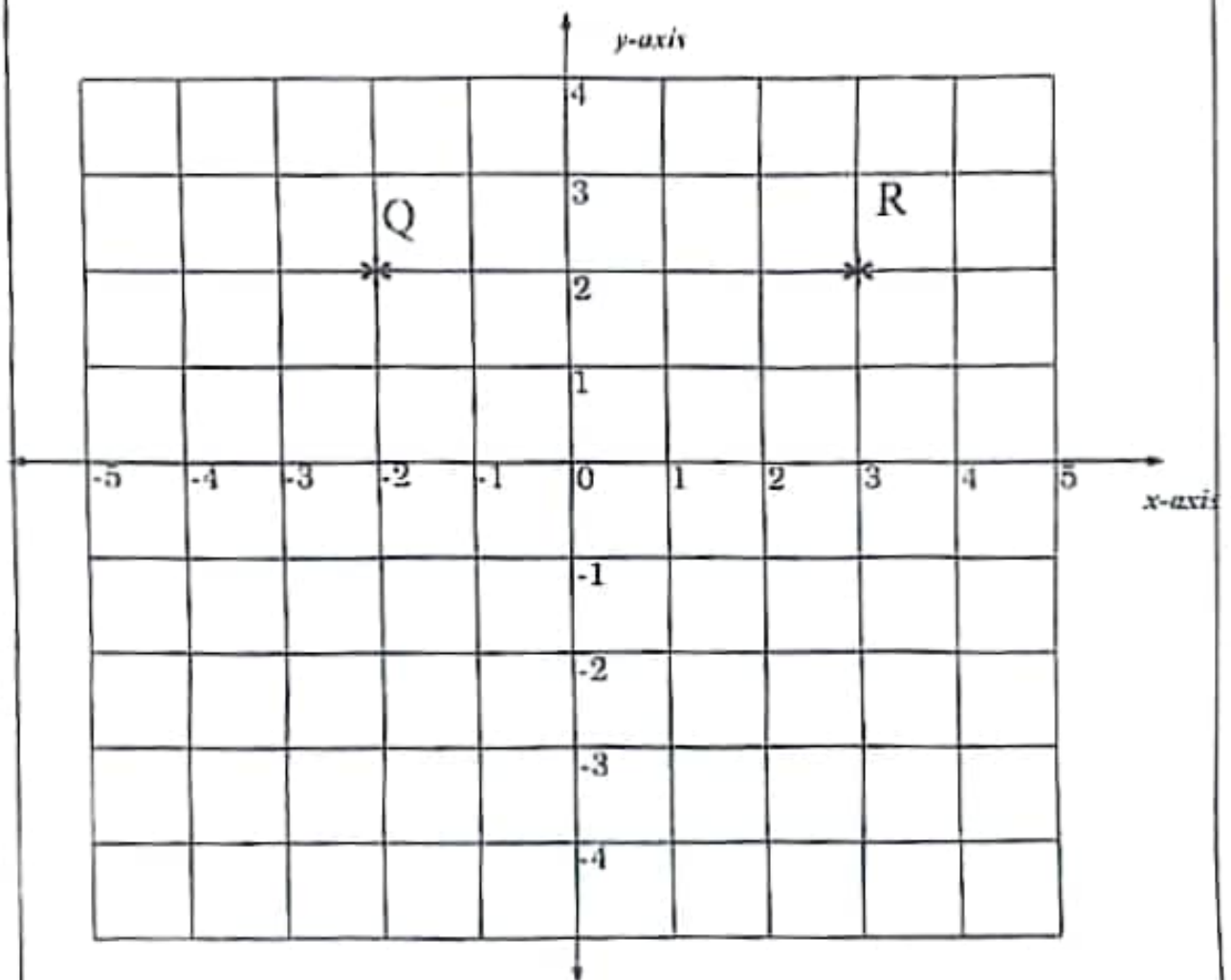| 30.	Given the digits 6, 0, 4. List down three possible numbers that can be formed from the digits above.	b)	Work out the product of the smallest and the biggest number formed.
			2 marks
	3 marks		

31. The table below shows marks scored by some pupils.

Marks	40	80	64	72
No. of pupils	3	1	K	2

a)	If the mean mark of the pupils was 59, find the value of K	b)	Find the number of pupils that did the exams.
	4 marks		2 mark

32)

a) On the Co-ordinate graph below plot. P(-2, 1) S(-2, -1)

(02 marks)

b) List the co-ordinate of;

Q(   )

R(   )

(02 marks)

c) Join P to Q, Q to R, R to S and S to P to form a trapezium.

(01 mark)