SURE KEY EXAMINATIONS BOARD
PRIMARY LEAVING UNIQUE SET EXAMINATION
2022
MATHEMATICS

Time Allowed: 2 hours 30 minutes

Admission No.						Personal No.		

Candidate's Name: ....

Candidate's Signature: ....

School Name: ....

District Name: ....

Read the following   instructions carefully:

1. Do not forget to write your **school** and **district name** on this paper.

2. This paper has two sections: **A** and **B**. Section **A** has **20** questions and Section **B** has **12** questions. The paper has **15 printed pages** altogether

3. Answer **all** questions. **All** the working for both sections **A** and **B** must be shown in the spaces provided.

4. **All** working must be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **not** be marked.

5. **No calculators** are allowed in the examination room.

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

7. Do not fill anything in the table indicated: **"For Examiners' Use only"**   and boxes

1.   Subtract: 100 − 99.

2.   Round off 59.97 to the nearest whole number.

3.   Simplify: $\dfrac{0.9 \times 0.6}{0.03}$

4.   Workout the square of the next number in the sequence below.

21, 15, 10, 6, ……….

5. Benita packed 55.5kg of sugar in small bags weighing 0.5kg. Find the number of small bags she used altogether.

6. Given that 4 mangoes cost Sh.2,000. Find how many mangoes would one buy with Sh.6,000.

7. Calculate the average of: $4x$, 8, 6 and $2x$.

8. Workout: 110_{two} x 11_{two}.

9. Write in figures: 'Three hundred thirty three thousand thirty three'.

Turn Over

10.   A Mathematics paper started at 12:00 noon and ended after $2\frac{3}{4}$ hrs. At what time did the Mathematics paper end?

11.   What is the smallest number divisible by either 6 or 7?

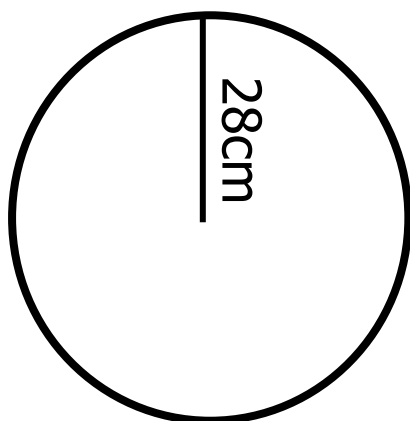12.   Find the solution set for x : $^{-}3 < x < 8.$

13.   Given that Set R = {m, o, p, q}, how many subsets are in set R?

14.   A square room is 3.6 metres long. What is its area?

15.   Simplify: $\frac{1}{4}(4 + 12b)$

16.   Find the circumference of the figure below.


28cm

17.   With the help of a ruler and a pair of compasses only, construct an angle of 30^0.

Turn Over

18. Express 0.345 kilometres in metres.

19. The Ministry of Education and Sports supplied 2800 textbooks last year. This year the supply decreased by 800 books. In what ratio has the supply decreased?

20. The diagonals of the rhombus below are 8cm and 6cm respectively. Calculate the perimeter of the rhombus.
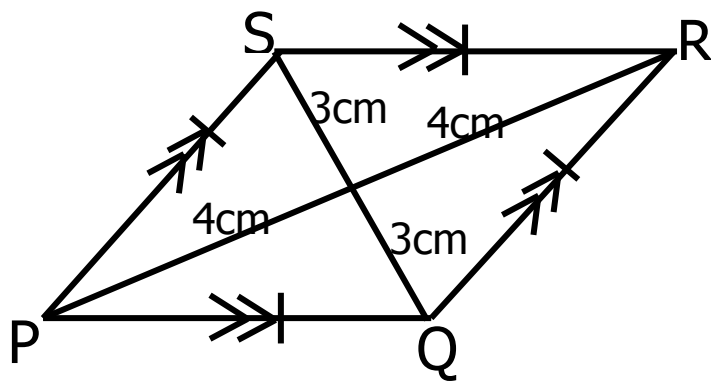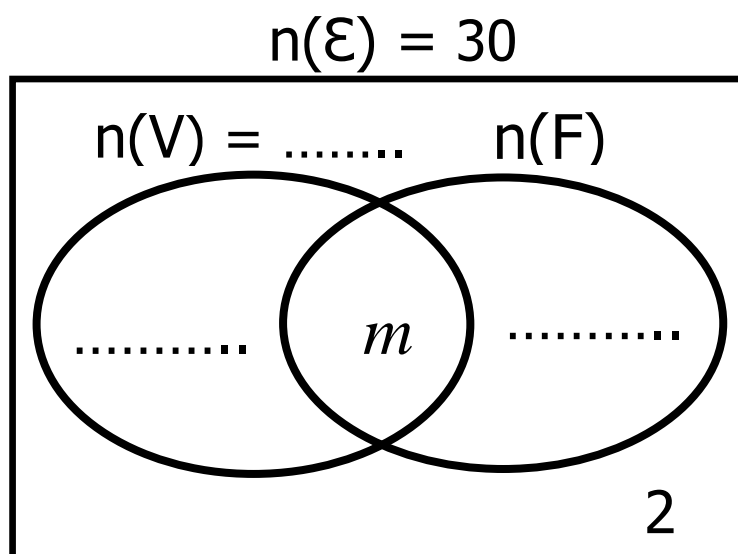
SECTION B: 60 MARKS
Answer **all** questions in this section
Marks for each question are indicated in brackets

21.   In a class of 30 pupils, 20 play Volleyball (V), 15 play Football (F)
      m play both Volleyball and Football and 2 do not play any of the
      two games.

   (a)   Use the information above to complete the Venn diagram below.
                                                              (03 Marks)

n(ε) = 30

n(V) = ...   n(F)

.... m ....

2

   (b)   Find the number of pupils who play only one game. (02 Marks)

22.   (a)   Uganda became politically independent from Britian in 1962.
            Write the year in Roman numerals.   (02 Marks)

(b)   What number has been expanded to give   (03 Marks)

$(2 \times 10) + (5 \times 1) + (4 \times \frac{1}{10}) + (1 \times \frac{1}{100}) + (6 \times \frac{1}{1000}) + (8 \times \frac{1}{10000})$?

23.   (a)   The area of a Trapezium is 120cm^2 and its height is 10cm. Find the length of one of the parallel sides if the second one is 10cm.   (03 Marks)

(b) $A = \frac{1}{2} h(a+b)$. Find the value of A if b = 6cm, h = 9cm and a = 10cm.   (02 Marks)

24. (a) In the space below, use a ruler, pair of compasses and a sharp pencil only to construct a triangle EFG, where EF = 7cm, angle EFG = 120^0 and FG = 6cm.

.   (04 Marks)

(b) Measure length EG _____cm.   (01 Mark)

25. (a) Solve: $\dfrac{m + 1}{3}$ + $\dfrac{m}{4}$ =   2.   (03 Marks)

Turn Over

(b)   Solve for q: $\dfrac{2}{6} q^2 = 12.$ (03 Marks)

26.   Matovu went to the market with 3 ten thousand shilling notes and bought the items shown on the table below.

(a)   Study it carefully and complete it.   (04 Marks)

| Item	Unit cost	Quantity	Total cost
G.nuts	…………..	2kg	Sh.7,000
Maize flour	Sh. 3,000	2½kg	Sh. ……………..
Millet	Sh. 2,500	……………	Sh.7,500
Milk	Sh. 12,000	………litres	Sh.6,000
Total Expenditure			Sh. ……………

(b)   Calculate how much Matovu paid for the items if she was given a discount of Sh.8,000.   (02 Marks)

27. 30% of Mukasa's cattle are calves and 55% are cows.
    (a) What is the percentage of bulls? (02 Marks)

    (b) If he had 480 heads of cattle, how many calves does he have?
    (03 Marks)

   (c) If he sells off 25% of the bulls and 15% of the calves, how many animals will remain? (02 Marks)

28. The diagram below shows a metallic door to be fixed at the entrance of the church. If PQRS is a square of sides 3m.
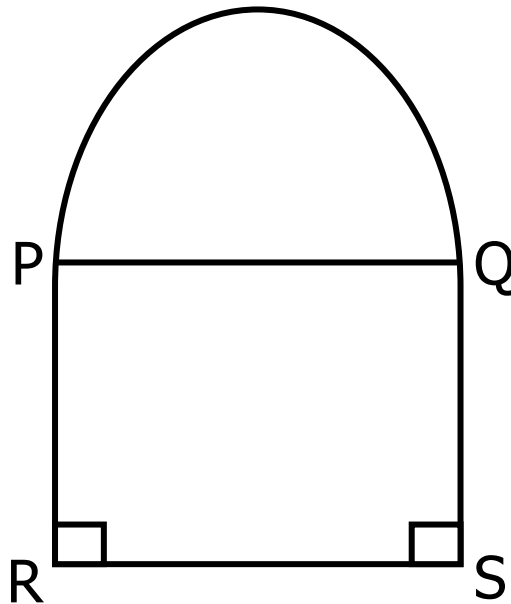
(a) Find the area of the semi-circle in cm^2. (Use $\pi = \frac{22}{7}$)

(03 Marks)

(b) Find the area of the square in cm^2. (02 Marks)

(c) What is the total area of the metallic sheet in m^2 the welder used to make this door? (02 Marks)

29. The figure below shows a sitting room covered with a carpet leaving a space of 2 metres on either sides of the wall.
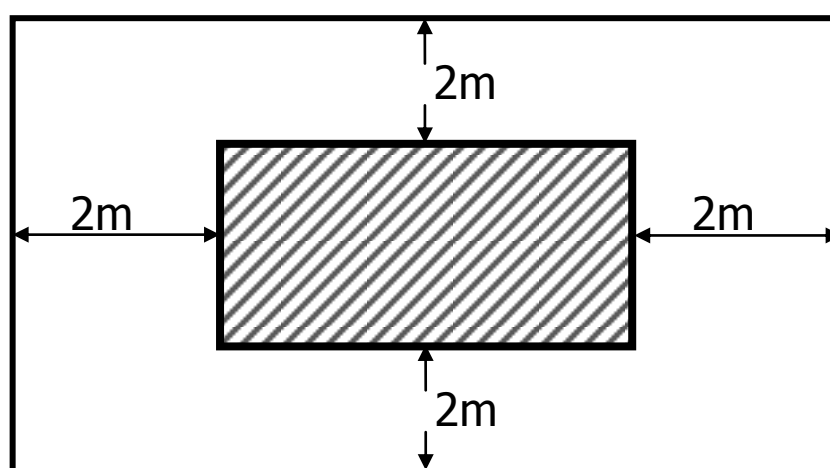
(a) What is the actual length and width of the carpet?   (02 Marks)

(b) Calculate the area uncovered by the carpet.   (02 Marks)

30. (a) Write 2310hrs in the 12-hour clock time.   (02 Marks)

(b)   Change 9:40 p.m. to 24-hour clock.   (02 Marks)

31.   A motorist left Town A at 10:30 a.m. and reached Town B at 12:30 p.m. driving at an average speed of 60km/h. She made a stop over at Town B for 1½hrs and thereafter continued to Town C at a speed of 40km/h for 3 hours.

(a)   How far is Town C from Town A?   (03 Marks)

(b)   Calculate her average speed for the whole journey.   (03 Marks)

32. Tap A fills a tank in 3 minutes and Tap B fills the same tank in t minutes.

   (a) If the two taps fill   of the tank in one minute. Find the value of t.   (03 Marks)

   (b) If 280 litres of water is filled by the two taps in one minute. Find the capacity of the tank.   (03 Marks)

END