UGANDA NATIONAL EXAMINATIONS BOARD

PRIMARY LEAVING EXAMINATION

2019

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Cand. No.									

Candidate's Name .....

Candidate's Signature .....

School Random Number .....

District Random Number .....

Read the following instructions carefully:

1. The paper has 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 Sections 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. Diagrams should be drawn in pencil.
6. Unnecessary changes in your 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 table indicated:

   "For Examiner's use only" and boxes inside the question paper.

FOR EXAMINERS' USE ONLY		
Qn. No	**MARKS**	**EXR'S. No.**
1 – 5		
6 – 10		
11 – 15		
16 – 20		
21 – 22		
23 – 24		
25 – 26		
27 – 28		
29 – 30		
31 – 32		
TOTAL		

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SECTION A: 40 MARKS

Answer all questions in this section

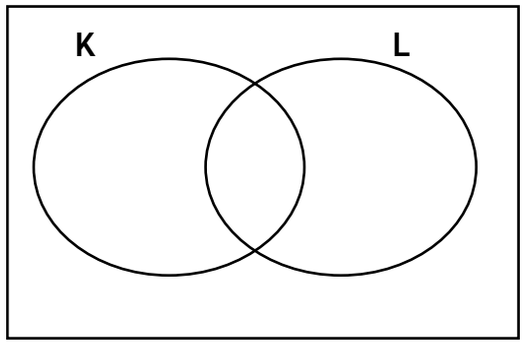
Question 1 to 20 carry two marks each.

1. Add: 26 + 32

2. Write XLIV in words.

3. Find the sum of the next two missing numbers in the sequence.
   1, 8, 27, 64, _____, _____

4. In the Venn diagram below, shade the complement of set **L – K.**



5. A television set has gross weight of 12.8 Kilograms. Express the net weight of the television set in grams if it is packed in a box weighing 0.9 kilograms.

6. Change 46_{ten} to ternary base.

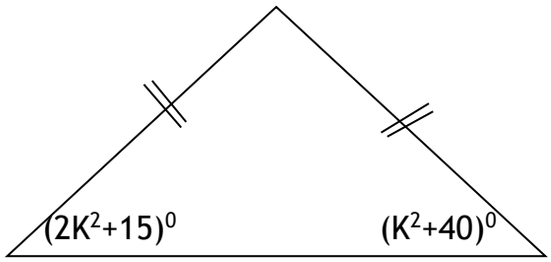
7. Express 0.121212…… as a common fraction in its simplest form.

8. A Mathematics test of 20 questions is marked out of 100%. If a teacher awards 5 marks for every correct answer and deducts 3 marks for every wrong answer. How many correct answers has a pupil who scores 68%?

Turn Over

9. A pine tree is the 3rd from the four cardinal directions. If the trees are planted at a distance of 2metres apart, find the total distance among all the trees.

10. Study the figure below and use it to find the value of **K.**

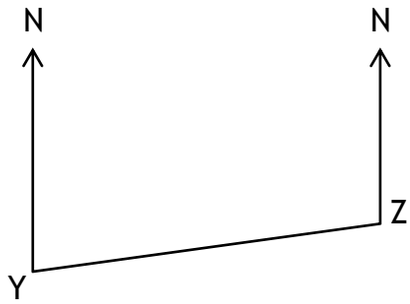


11. Find the mean of 3, 2P + 2, 3P, 0 and 5.

12. Factorize completely: $6p^2q - 4pq^2$

13. How many elements are in a set with 1 subset?

14. The direction of Z from Y is N55^0E. Find the opposite direction of Y from Z using the diagram below.



15. At Jerox Forex Bureau, the exchange rates are as shown in the table below.

Currency	**Buying rate**	**Selling rate**
US dollar 1	Ug. shs.3630	Ug. shs.3710

If a tourist comes to Entebbe with US dollars 810, how much money in Uganda shillings will the tourist get from Jerox Forex Bureau?

Turn Over

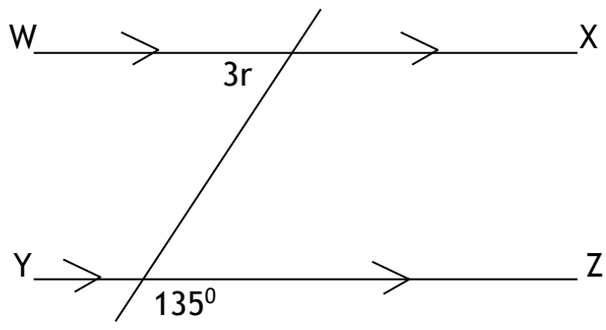
16. Write 0.0673 in scientific notation.

17. Solve for the value of y: $4(y - 3) - (2 - y) = 1$

18. Using a ruler, a pencil and a pair of compasses only, construct an angle of 75^0 in the space below.

19. It started raining at 10:40pm and stopped at 11:20am. For how many hours did it rain?

20. In the figure below, WX is parallel to YZ. Calculate the value of r in degrees.



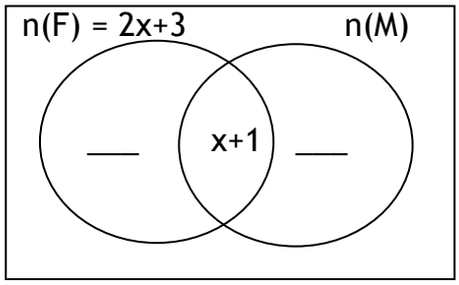
Turn Over

SECTION B: (60 MARKS)

Answer all questions in this section
Marks for each question are indicated in the brackets.

21. In a primary seven class of a certain school, 2x+3 candidates like Fanta (F), 3x–1 candidates like Mirinda (M) and x+1 candidates like both soda brands.

(a) Represent the information on the Venn diagram below.



(2 marks)

(b) Find the total number of candidates in the class if 12 candidates like Mirinda. *(2 marks)*

(c) If a candidate is picked randomly, what is the probability that the one picked does not like Mirinda? *(1 mark)*

22. Primary seven class takes 6 days to weed a school garden and primary six class takes 1 week and 5 days to weed the same garden.

(a) How many days will both classes take to weed the garden altogether?

(2 marks)

(b) If the school garden has perimeter of 60m. How many square metres (m^2) do both classes weed per day?

(2 marks)

Turn Over

23. A mother is thrice as old as her son who is K years old. In 2 years' time, the product of their age will be 8(K + 38).

(a) Find the mother's actual age now.

(3 marks)

(b) Work out their total age now.

(2 marks)

(c) How old was her son in 5 years ago?

(1 mark)

Turn Over

24. The table below shows the points scored by pupils in a spelling bee competition.

Points	85	75	80	95
Number of pupils	3	1	4	2

(a) How many pupils participated in the competition?

(1 mark)

(b) Find the median points.

(2 marks)

(c) How many pupils scored below the mean points mark?

(2 marks)

25. The interior angle of a regular polygon is four times its exterior angle.
(a) Name the regular polygon.

(2 marks)

Turn Over

(b) Calculate the sum of its interior angles.

(3 marks)

26(a) Using a ruler, a pencil and a pair of compasses only, construct a quadrilateral PQRS in which PQ = 8cm, QR = PS = 5cm and angle PQR = SPQ = 60^0.

(4 marks)

(b) Measure the length of line SR in cm.

(1 mark)

Turn Over

27. Mama went shopping with two-twenty thousand shilling notes and bought the items shown in the bill below. Use it to answer the questions that follow.

Item	**Quantity**	**Unit cost**	**Total cost**
Beef	4kgs	shs. 10,000	shs._____
Bread	3 loaves	shs._____	shs. 12,600
Cooking oil	_____litres	shs. 3,600	shs._____
Sugar	2½kgs	shs. 4,000	shs._____
Total Expenditure			**shs. 20,000**

(a) Complete the table above.

(5 marks)

(b) How much money did Mama go back with?

(1 mark)

28. (a) Simplify: $\frac{1.2 \times 0.008}{0.16 \times 0.3}$

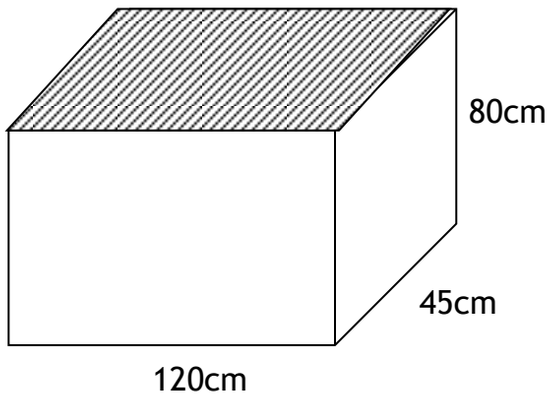
(3 marks)

Turn Over

(b) Solve the inequality and write down the solution set: $18 \leq 3n \leq 24$

(2 marks)

29. The figure below shows an open cuboid. Study it carefully and answer the questions that follow.



(a) Calculate the capacity of the above cuboid above if it is a fifth full.

(3 marks)

(b) Work out its Total Surface Area (T.S.A).

(2 marks)

30. (a) Solve: $\frac{2x - 1}{3} = \frac{x + 3}{2}$

(3 marks)

(b) Jack, Joan and John shared some biscuits in the ratio of 4:5:3 respectively. If Joan got 18 more biscuits than John, how many biscuits did Jack and John get altogether?

(2 marks)

31. A motorist started his journey from Town A at 7:00 am, driving at a speed of 60km/hr and reached Town B in 4 hours. He rested for 1½ hours and returned at a steady speed of 120km/hr.

(a) At what time did the motorist reach Town A?

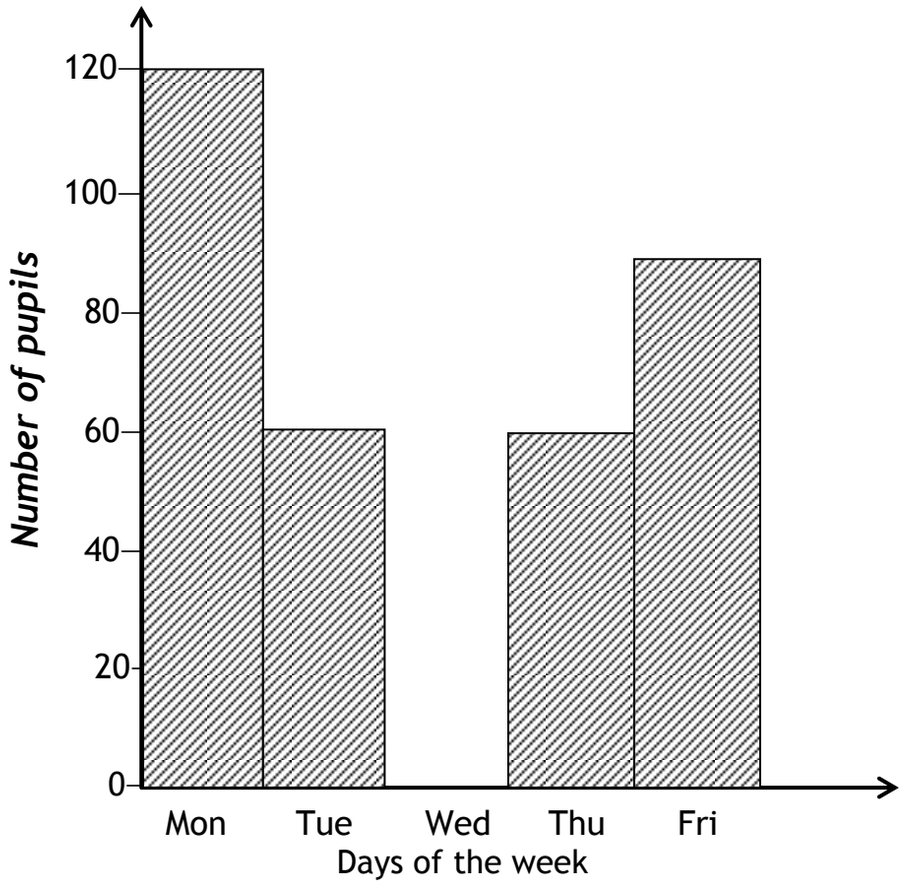
(3 marks)

(b) Calculate the motorist's average speed for the whole journey.

(2 marks)

Turn Over

32. The graph below represents the number of absentees that were recorded in Crane Junior School in a certain week. Study it carefully and answer the questions that follow.



(a) Which day was most likely to be a public holiday? *(1 mark)*

……

(b) How many more pupils attended on Tuesday than on Friday?

(1 mark)

(c) Find the total number of absentees in the whole week.

(2 marks)

END