P.L.E MATHEMATICS 1998

SECTION A

1. What is X if: 7 + X = 11?

2. Express 125g as a fraction of a kilogram.

3. Write 40 in Roman numerals.

4. Change 1010_{two} to base ten.

5.

6. Given that:- P = (1, 2, 3, 4, 5) and N = (1, 3, 5, 6, 7) Find n (P∪N).

7. The cost of 6 books is shs 4,500/=. What is the cost of 9 books?

8. Find the next number in the sequence: 0, 1, 2, 3, 5, 7, 9, ...

9. There are 45 pupils in a class. The ratio of the girls to the boys is 2:3. Find the number of girls in the class.

10. In the figure below, find the size of angle marked X.

11. Find the median of the following numbers: 0, 3, 6, 2, 5, 1, 4.

12. If p = r, r = ⁻4 and q = 3, work out:

13. The average length of three strings is 38cm. two of the strings measure 44cm each. Find the length of the third string.

14. Kamanda paid shs 12, 600 for which was at 10% discount. How much was the discount?

15. Write in numerals: "sixty thousand six".

16. Simplify: 2 (7 - a) - (8 - a)

17. A minute hand of a clock makes $2\frac{1}{2}$ revolutions to cover the time of the Mathematics examination. If the examination starts at 9.45am. at what time will it end?

18. A school bag contains 6 yellow and 5 green pencils. Find the probability of picking a yellow, pencil at random from the bag.

19. Musa deposited shs 60,000/= in crane bank which offers an interest of 12% for year. How much interest did Musa receive from the bank after 9 months?

20. If the area of the figure ABCD below is $60m^2$, find the length of its diagonal AC,

FIGURE

21. Add: 35.7 + 0.35

22. Using a pair of compasses and a ruler only, bisect the line given below.

LINE

23. Find the diameter of a circle whose circumference is 4.4cm.

24. 6 men take 10hours to weed the same garden?

25. The distance between Tororo and Mbale towns by road is 45km. on the map of Uganda the distance between the two towns is 5cm. find the scale of map.

26. Find the lowest common multiple (L.C.M) of 6 and 9.

27. Mukasa was born on 1st January 1980. How old was he on 31st December 1990?

28. A wheel of a bicycle makes $1\frac{1}{2}$ revolutions will it make to cover to cover 120 meters?

29. A bus broke down after covering $\frac{5}{7}$ of the journey. The remaining distance to complete the journey was 140km. how long was the whole journey?

30. Divide: 4.2 ÷0.03

SECTION B

31. In a class of 50 buys, 40 like mathematics (M) and 25 like science (S). Some boys (X) like both subjects and 2 do not like any of the two subjects.

a) Show this information in a Venn diagram below.

VENN DIAGRAM

b) How many boys like both Mathematics and science?

c) How many boys like mathematics only?

d) How many boys like science only?

32. A piece of cloth is laid on a table 90cm long and 70cm wide as shown in the figure below. The area covered by piece of cloth is shaded.

RECT

a) Find the length and width of the piece of cloth.

b) Find the area of the table which is not covered by the piece of cloth.

33. A tap was opened for 5 minutes and water of 40 litres poured into a tank. How long would it take to fill a tank whose capacity is 1080 litres using the same tap? (give your answer in hours)

34. The table below shows the goals scored by football teams in a season. Use it to answer the questions that follow.

Goals scored	0	1	2	3	4	5	6	7
Teams scoring the goals	2	5	10	8	5	4	3	1

a) How many teams participated altogether?

b) Find the mode of the goals scored

c) Work out the mean score.

35. A motor cyclist leaves his home at 9.00am. For Kisoro town which is 45km away, riding at 16km per hour? At 9.15am. He gets a puncture and delays for 15 minutes. At what spend

must he cover the remaining journey in order to reach Kisoro town at 10.00am? (Give your answer in kilometers per hour.)

36. a) Using a ruler and a pair of compasses only, construct a triangle KPR such that angle KPR = 90^0, angle PRK = 30^0 and PR = 5.8cm.

b) Measure KR.

37. Find the areas area of the shaded part in the figure ABCD below.

FIGURE

38. To make a school uniform for a primary seven girl, a tailor needs:

$2\frac{3}{4}$meters of cloth at shs1,200 per meter,

2 buttons at shs200 per button,

School barge costing shs500

Thread shs 200

Tailor's labour shs3,000

a) Find the total cost of the dress.

b) If Jane paid shs7,030 for the dress, what percentage discount was she given?

39. In kabiriti market the cost of a cow is 7 times the cost of a goat. Opit bought a cow and a goat at shs232, 000. Find the cost of each of the two animals.

40. A farmer planted his land as follows:

Maize $\frac{2}{5}$of the land,

Beans $\frac{1}{3}$of the land,

Peas $\frac{1}{5}$of the land, and

Elephant grass on the remainder.

Draw a pie chart to represent this information.

41. Below is part of Uganda airlines timetable for daily flights between Entebbe, Soroti and Kasese. Use it to answer the questions which follow.

FROM	TO	FLIGHT NO.	DEPATURE	ARRIVAL
Entebbe	Soroti	QU 740	0700 hours	0800 hours
		QU 758	1700 hours	1800 hours
Entebbe	Kasese	QU 702	0700 hours	0815 hours
		QU 730	2100 hours	2215 hours
Kasese	Entebbe	QU 703	0700 hours	0815 hours
		QU 731	2145 hours	2300 hours
Soroti	Entebbe	QU 741	0830 hours	0930 hours
		QU 759	1830 hours	1930 hours

a) How long does the flight from Entebbe to Soroti take?

b) Otema travelled from Kasese to Entebbe in the evening. He then travelled to Soroti by the earliest flight.

(i) For how long did otema wait at Entebbe?

(ii) At what time did he arrive at Soroti?

c) If QU 758 to Soroti returns to Entebbe as QU759, for long does the plane stop at Soroti?

42. Peter and john walked from the same point O. peter walked 50 meters westwards to point P and john walked 50 meters southwards to point Q.

a) Sketch a diagram to show the above information.

b) Draw an accurate diagram to show the movement of the two boys. Use a scale of 1cm to represent 10 metres.

c) Measure the distance between P and Q and give your answer in meters.