**PRE PLE -2020**

**P.7 MATHEMATICS SET 3**

*Time allowed: 2 Hours 30 minutes*

Candidate’s Name: ....................................................................................

Index No.

School: ............................................................................................................

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| ***SECTION A (40 Marks)***  ***Answer all questions in this Section***  ***Question 1 to 20 carry two marks each.*** | |
| 1. Multiply: 3 x 3 x 3 | 2. Simplify: -6 - +6 |
| 3. Write 94 in Roman numerals. | 4. Find the next number in the sequence below: 27, 9, 3, 1, …….. |
| 5. If today is a Tuesday, the support staffs are paid their salary, what day of the week will their next pay be, 30 days from today? | 6. St. Peter Primary School has a total of 300 pupils. If there are 180 boys in the school, what is the ratio of girls to boys? |
| 7. Mercury banked sh.100, 000 in Bank of Africa at a simple interest rate of 12% per annum. What interest did she earn after 8 months? | 8. Solve: 3p2 = 48 |
| 9. Two bells ring at intervals o 30 minutes and 40 minutes respectively. If they start ringing together at 8:00am, after how many minutes will they ring next together? | 10. Drop a perpendicular line from point P to line XY below. |
| 11. Find the size of angle P in the diagram below. | |
| 12. If x = 2, y = 1 and z = 0.5, calculate | 13. If set A = {0, 2, 4, 6, 8} and set  B = {1, 2, 3, 4, 9}. Find A – B |
| 14. Given the numeral 38.47, find the product of the place value of 3 and 4. | 15. A girl read of a book on Monday and of it on Tuesday, she remained with 20 pages to read. How many pages have the book? |
| 16. Divide: by | 17. Express 12.30a.m in a 24 hour clock. |
| 18. At an average of 60km/hr, a car covered a distance of 270km. Calculate the time it took to cover that distance. | 19. A pair of shoes priced at sh.50, 000 was sold to a customer at a discount of 20%. How much money did the customer pay for the shoes? |
| 20. Calculate the volume of the figure below. | |
| ***SECTION B: (60 Marks)***  ***Answer all questions in this Section***  ***Marks for each question are indicated in brackets*** | |
| 21. In a class of 60 pupils, 25 like likes English (E) X like Mathematics (M) only, 20 like both English and Mathematics. 5 pupils do not like any of those two subjects.  (a) Complete the Venn diagram below using the information given above. (2mks) | |
| b) Find the value of x. (3mks) | c) What is the probability of picking at random one of the pupils who like only one subject? (1mk) |
| 22(a) Solve: 5t – 2(t + 1) = 1 (3mks) | b) Solve the inequality: -2p + 4 > 6 (3mks) |
| 23. Wambwa scored the following marks in a number of Mathematics tests:  75, 80, 60, 70, 45, 50  Find the:  a) Range in the marks. (1mk) | |
| b) Modal frequency. (1mk) | c) Mean mark (3mks) |
| 24. Using a pair of compasses, a ruler and a pencil only,  a) Construct a triangle ABC in which BC = 8cm, angle ABC = 900 and angle BCA = 300  (4mks)  b) What is the area of triangle ABC? (3mks) | |
| 25. Rubongi drove from Kampala to his village at an average speed of 90km/hr for hrs. He then drove back from the village to Kampala for 5 hours. | |
| a) How far is Rubongi’s village from Kampala? (2mks) | b) Calculate his average speed for both journeys. (3mks) |
| 26. A regular polygon has an exterior angle of 450 | |
| a) Find the number of sides of the polygon.  (2mks) | b) Calculate the sum of interior angles.  (2mks) |
| 27(a) Express 0.3636….as a common fraction. (2mks) | b) Express 500m as a percentage of 4km.  (2mks) |
| 29. The width of the rectangle ABCD below is 3cm. Its perimeter is 14cm. Use it to answer the questions that follow.  (a) What is its length? (2mks) | |
| b) Express 500m as a percentage of 4km. (2mks) | |
| 29. Given two numbers 24 and 30, find their; | |
| a) Lowest Common Multiple (L.C.M)  (2mks) | b) Greatest Common Factor (G.C.F) (2mks) |
| 30. A businessman has 200 bags of maize flour each weighing 50kg. | |
| a) Find the total weight of the bags in tones. (2mks) | b) If a pick up carries 2 tonnes per trip, work out the number of bags the pick up will carry in one trip. (2mks) |
| 31. Work out the area of the shaded part of the given figure. (4mks) | |
| 32. A piece of land it used as follows:  - 5 hectares for growing  - 10 hectares for keeping animals  - 20 hectares for growing matooke  - 25 hectares for sugar cane.  Represent the above information a pie chart (use radius of 4cm) (7mks)  END | |