**ITEM FIVE**

**MATHEMATICS**

**Time: 2:hours**

**Index No.**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Stream\_\_\_\_\_\_\_\_\_\_**

**SECTION A (40 MARKS)**

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| --- |
| 1. Name the part marked X in the figure below   X |
| 1. Simplify: X ÷ X**5** |
| 1. Change 234**Six** to base ten. |
| 1. Divide 31 14136 |
| 1. What is the multiplicative inverse of 0.5 in its simplest form? |
| 1. Simplify: -2 + -7 using a number line. |
| 1. How long will it take a car to cover a distance of 120km at a speed of 40 km/hr? |
| 1. Without using a compass, draw an angle of 45**0** in the space provided below. |
| 1. Find the value of angle w in degrees   w |
| 1. Through what angle does a minute hand of a clock move in 15 minutes? |
| 1. How many lines of folding symmetry has the figure below?   y  70**0** 70**0** |
| 1. If A = h(a+b). Find the value of A if h = 10mm, a = 16mm and b= 17mm. |
| 1. Name the net drawn below |
| 1. Express as a decimal fraction. |
| 1. Round off 467.962 to the nearest tenths. |
| 1. Use distributive property to work out : 345 x 44 + 345 x 56. |
| 1. What number must be added to 2m + 2b to get 4m + 3b**n**? |
| 1. Change 4Hm to Kilometres. |
| 1. Workout: 3 x 4 = \_\_\_\_(finite 5) using a dial. |
| 1. Expand 32.456 using powers of ten. |
| **SECTION B (60 MARKS)** |
| 1. A tank is full of water, when 20 litres are removed it becomes  full. How many litres of water are in the tank when it is  full? (4marks) |
| 1. The perimeter of the rhombus is 100cm and one of the diagonals is 48cm.   Find its area (5marks). |
| 1. A man spends 20% of his income on Rent and  of the remainder on Food. If shs. 48000 is left, what is his income? (5marks) |
| 1. Follow the instructions given below to have a geometric shape (4marks) 2. i) Draw line  = 6cm 3. Construct 60**0** on angle A. 4. Measure 5cm from A to mark 5. Line AB = CD and line AD = BC, join the points to form a polygon. (4marks) 6. Name the figure formed (1mark) |
| 1. The rate at which the bank buys and sells united states dollars and Kenya shillings are given below  |  |  |  | | --- | --- | --- | | **Currency** | **Rate at which a bank buys** | **Rate at which a bank sells** | | One U.S Dollar | Ug. Shs. 3200 | Ug.shs. 3350 | | One Kenya shilling | Ug. Shs. 31 | Ug.shs. 34 |  1. If a tourist has 800 dollars and 259 kshs, how much money in Uganda shillings can be got from the bank? (3marks) 2. How many 1,000 shilling coins are equivalent to one fifty thousand shilling note? (2marks) |
| 1. Use the diagram below and answer the questions that follow:-   8mm  6mm   1. Find the area of the whole figure (3marks) 2. Work out its perimeter (2marks) |
| 1. The pie chart below shows how Mrs. Matove spends her monthly salary       Savings Food    110**0**  600  P0 Transpor  Medical care     1. Find the value of P in degrees. (2marks) 2. If she spent sh. 18000 more on Food than Transport, How much does she earn per month? (3 marks) 3. Express her savings as a fraction of the total (1mark) |
| 1. a)What angle is  of its complement? (3marks)   b) Find the supplement of (y + 60)0 (2 marks) |
| 1. a) Solve for K . 2k + 6 = 4 + 4k (3marks)   4 6  b) My mother’s age is m years and I am half her age. Our total age is 60 years. Find my mother’s age.(2 marks) |
| 1. The Interior angle of a regular polygon is 140**0**. 2. Name the polygon (2marks) 3. Find the number of right angles in that polygon. (1mark) 4. Calculate its interior angle sum. (2marks) |
| 1. Study the venn diagram below that shows pupils who passed English and Maths and use it to answer the questions that follow. **Key**   n(∑) = E– English  **M** –Mathematics  n(E)= n(M)=      x+20 x 2x  6 + x     1. If the number of pupils who did not pass English is 21. Find the value of x.(2mks) 2. Find the number of pupils in the above class (2marks) |
| 1. Below is a cylindrical tin, use it to answer the questions that follow.   (Take π = 3.14)  10cm  20cm     1. Find the total area of the two circular faces. (2marks)      1. What is the area of the curved surface (2marks) 2. Calculate its volume. (2marks) |

**End**