**MID TERM I EXAMS 2024**

**MATHEMATICS FORM 1**

Define and give examples of the following:

1. Natural numbers (2mark)
2. Integers (2 mark)
3. Odd numbers (2 mark)
4. Prime numbers (2 mark)
5. Even numbers (2mark)
6. Composite numbers (2 mark)
7. (a) State the place values of the following digits in the number 201.789.
8. 1 (1mk)
9. 8 (1mk)
10. 7 (1mk)

 (b) Write 207,099,099 in words. (2mks)

1. In the following number state the digit in the:

 102 365 478 901

1. Ten thousands place (1mark)
2. Hundred millions place (1mark)
3. Billions place (1mark )
4. Write the following number in figures:

Two billion, eight hundred and seventy-nine million and two hundred (1 mark)

1. Write the following value in figures

4.8 billion (1 mark)

1. Round off the following numbers to the nearest billion (1 mark)

 9 491 014 618

1. Work out $\frac{-2\left(4-7\right)+8(-5+3)}{-5+(-8+2)}$ (3marks)
2. The average score in a mathematics test in a class of 46 students is 53.5. Find the total marks of the whole class. (2marks)
3. The GCD of two numbers is 8 and their LCM is 360. If one of the numbers is 72, what is the other number? (2 marks)
4. When a number $u $ is divided by 36 or 24 or 40 the remainder is always 5. Find the least value of $u$ (3 marks)
5. Three bells ring at intervals of 12 minutes, 15 minutes and 18 minutes. If they sound together at 10 a.m.
6. After how long will they next sound together? (3 marks)
7. What time will this be? (1mark)
8. Convert $1\frac{3}{4}$ into a mixed decimal (2 marks)
9. In the number 38.167, calculate the sum of the total values of digits 8 and 6 (3 marks)
10. Test whether 337480 is divisible by:
11. 4 (2 marks)
12. 6 (2 marks)
13. 8 (2 marks)
14. 11 (2 marks)
15. Find the LCM of the following numbers leaving your answer in power form (2 marks)

$$2^{3}×3×5^{3},2^{4}×3^{2}×7,3^{3}×5^{2}×7$$

1. Convert the following recurring decimals to fractions (4 marks)
2. $0.0\dot{1}\dot{4}$
3. $3.\dot{1}8\dot{7}$
4. In a ranch $\frac{1}{4}$ of the animals are goats and sheep and $\frac{4}{5}$ of these are sheep. Two-fifths of the remaining animals are cows and the rest are bulls. What fraction of the animals are:
5. Goats (1mark)
6. Sheep (1 mark)
7. Cows (1 mark)
8. Bulls (1 mark)
9. Evaluate; (3marks)



1. Mutai leaves behind 50 hectares of land and sh. 120,000 savings in his will. The land was sold at sh. 80,000 per hectare. If his wife gets sh. 520,000 and the rest is divided equally among his four sons and two daughters, how much money does each child get? (4 marks)
2. Express **900** as a product of its prime factors (2 marks)
3. Find the **L.C.M** and the **G.C.D** of 24, 60 and 108 using prime factors method and **leave your answers** as a product of their prime factors. (4marks)
4. Evaluate $0.178 × 4.15$ correct to 3 decimal places (3 marks)
5. Simplify: $\frac{0.165×12.75}{0.25×0.0075}$ (3marks)
6. Write the following in standard form. (2marks)

i) 32890

ii) 0.00346

1. Write the 0.12 as fractions in its simplest form. (2 marks)
2. Arrange the following fractions in descending order. (3marks)

7/12, 2/3, ¾, 5/6

1. Use a number line to evaluate: (4marks)
2. (+4) + (-6)
3. (-5) – (-5)
4. A square room is covered by a number of whole rectangular slabs of sides 60cm and 42. Calculate the least possible area of the room in square metres. (4 marks)