Attempt all questions

1. Express the prime factors of each of the following numbers in power form:
   a. 600
   b. 2205

2. Find the GCD of 50, 70 and 125

3. Express the following decimals to fractions in their simplest forms.
   a. 2.465
   b. 0.0763

4. Evaluate: \(\frac{4}{5} \times \left(1 \frac{1}{4} - 5 \frac{1}{2}\right)\times 2 \frac{5}{6} \div \frac{2}{3}\)

5. Evaluate

\[\frac{34 - (-17)}{3} - \frac{18 - (-3)(-6)}{2}\]


7. Which of the following numbers are divisible by: - a) 6, b) 9 and c) 11
   204, 1595 and 2034

8. Rearrange the following fractions in ascending order.
   a. \(\frac{7}{12}, \frac{9}{19}, \frac{1}{20}, \frac{5}{18}\)
   b. \(\frac{3}{10}, \frac{1}{22}, \frac{9}{55}, \frac{7}{20}\)

9. Evaluate without using a calculator.
   a. \(8 + 4 \times 2 \div (3 - 4 \times 6 + 3)\)
   b. \(40 - 7 + 4 \times 6 \div 2\)

10. Given that 12 = 3 × 4, suggest a divisibility test for 12.

11. Find the value of n in each of the following:
    a. 585 = 13n
    b. 450 = 6 × 3n

12. All odd numbers less than 9 are arranged in a descending order to form a certain number
    a. Write down the number formed in
       i. Figures
       ii. Words
    b. What is the total value of the third digit in the number?
13. The LCM of 12, 84 and p is 420. If their GCD is 2, find the smallest possible value of p. (3 marks)

14. If 15 workers can feed 140 children in children’s home, how many children can be fed by 45 workers? (3 marks)

15. State the divisibility test for 8 (2 marks)

16. Tumaini miscopied 76 as 67. He then multiplied 67 by a certain number that Favor gave him. If he got the answer as 3886, find the number he was given. (3 marks)

17. The GCD for two numbers is 12 and their LCM is 240. If one of the numbers is 60, find the other number. (3 marks)

18. In an hour, Obote, Isindu and Murunga did $\frac{1}{3}$, $\frac{1}{3}$ and $\frac{1}{4}$ of the work respectively. Calculate the fraction of work done by the three working in 1 hour. (3 marks)

19. Find a third of $2\frac{1}{7}$? (2 marks)

20. Mutua had 200 goat and 112 cows. He took his herd for grazing and met Mwala who had 140 goat and 37 cows. During grazing, 50 goats and 17 cows died from a mysterious disease. How many animals of each type did they remain with? (3 marks)

21. Three bells are set to ring at intervals of 30 minutes, 40 minutes and 45 minutes respectively. If they rang together at 8:30 am at what time will they ring together again? (3 marks)

22. Find $x$ if $\frac{11}{x} = \frac{132}{84}$ are equivalent fractions. (2 marks)

23. Arrange the following fractions $\frac{2}{3}$, $\frac{7}{8}$, $\frac{5}{6}$, $\frac{1}{4}$
   a. In ascending order (2 marks)
   b. In descending order (2 marks)