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**DEPARTMENT OF EDUCATION****VHEMBE WEST****HLANGANANI CENTRAL****GRADE 8****MATHEMATICS****CIRCUIT BASED TEST****15 FEBRUARY 2023****MARKS: 50****TIME: 1 HOUR****This paper consists of 3 pages.****INSTRUCTIONS**

1. Answer All the Questions.
2. Number the answers correctly according to the numbering system on the Question paper.
3. Write neatly and legibly.

**QUESTION 1 ( MULTIPLE CHOICE)-Choose the letter with the correct answer.**

1.1 List the first 5 prime numbers : (2)

- A. 0 ; 1 ; 2 ; 3 ; 4
- B. 2 ; 3 ; 5 ; 7 ; 11
- C. 1 ; 4 ; 9 ; 16 ; 25
- D. -3 ; -2 ; -1 ; 0 ; 1

1.2 Find the HCF of 60 , 84 and 90 then write it as a product of its prime factor (2)

- A.  $2 \times 3$
- B.  $3^2 \times 2$
- C.  $2 \times 3 \times 3$
- D.  $2^2 \times 3 \times 5$

1.3 Masindi has 9 sweets and nhlalala has 3 sweets . What is the ratio of masindi's sweets to nhlalala's sweets ? (2)

- A. 4 : 3
- B. 5:2
- C. 3:1
- D. 9 : 3

1.4 Determine 20% of R500 . (2)

- A. R200
- B. R100
- C. R300
- D. R500

1.5 Which Number is the lowest ? (2)

- A. 5
- B. -10
- C. -20
- D. 0

**[10]**

## QUESTION 2

- 2.1. Find the LCM of 12 and 9 using the prime factor method (4)
- 2.2. Share R20000 among three brothers in the ratio 5 : 3 : 2 (3)
- 2.3. Increase R1000 by the ratio 2 : 3 (3)
- 2.4. Mukhethwa wants to buy a flat screen television set . He takes out loan of R7000 at 11 % per annum for 3 years .
- 2.4.1. Calculate the simple interest. (3)
- 2.4.2. What is the final amount he pays (2)
- 2.5. David is coming from an oversea visit in USA . He came back with \$2000 , Calculate how much will he get here in SA according to the exchange rates if \$1= R17.50 (2)

**[17]**

## QUESTION 3

- 3.1. Arrange these numbers in ascending order.
- 110 ; -95 ; 28 ; -112 (2)
- 3.2. Write down the additive inverse of -2 (1)
- 3.3. Calculate :
- 3.3.1.  $-52 + 16$  (1)
- 3.3.2.  $-3 - (-4 + 3)$  (2)
- 3.3.3.  $-48 \div (-6)$  (1)
- 3.4. Simplify :
- 3.4.1.  $(12 \times 4) - (-12 \times 6)$  (3)
- 3.4.2.  $(-3)^3$  (2)
- 3.4.3.  $2^3 - \sqrt[3]{-27} - 4(-2)$  (4)
- 3.4.4.  $4 - [2 \times 30 \div 5 + 3(-12 \div 4)]$  (3)
- 3.5 Katlego's bank statement shows a balance of R-400. How much does she need to deposit into her bank account to get her balance to R130 ? (2)
- 3.6. The temperature was recorded at 5 °C on Sunday. The next day it dropped by 12°C. What was the temperature the next day ? (2)

TOTAL: 50 marks