CHAPTER-10 | The Other Side of Zero

QUIZ PART-23

1. Who gave the first general treatment of positive numbers, negative numbers, and zero on equal footing?
   A. Aryabhata
   B. Brahmagupta
   C. Kautilya
   D. Bhaskara (B)

Explanation : The PDF says Brahmagupta gave the first general treatment of positive numbers, negative numbers, and zero in 628 CE.

2. In ancient India, credit and debit were written about extensively by
   A. Brahmagupta B. Kautilya
   C. Euclid D. Pythagoras (B)

Explanation: The PDF states that Kautilya discussed credit and debit in the Arthaśhāstra around 300 BCE.

3. The sum of two positive numbers is always
   A. negative
   B. zero
   C. positive
   D. not fixed (C)

Explanation: Brahmagupta's rule says the sum of two positives is positive.

4. The sum of two negative numbers is always
   A. positive B. zero
   C. negative D. not fixed (C)

Explanation: -To add two negatives, add their values and place a minus sign in the result.

5. What is the result of 2 + (-2)?
   A. 2
   B. -2
   C. 0
   D. 4 (C)

Explanation : A number plus its inverse is zero.

6. The sum of any number and zero is
   A. zero
   B. the same number
   C. always positive
   D. always negative (B)

Explanation : Adding zero does not change the number.

7. If a larger positive is subtracted from a smaller positive, the result is
   A. positive
   B. negative
   C. zero
   D. even (B)

Explanation : Example from the PDF: 2 - 3 = -1.

8. Subtracting a negative number is the same as
   A. adding zero
   B. subtracting a positive
   C. adding the corresponding positive
   D. making the answer negative (C)

Explanation : The PDF gives the rule: 2 - (-3) = 2 + 3.

9. Subtracting a number from itself gives
   A. 1
   B. -1
   C. 0
   D. the same number (C)

Explanation : Any number minus itself equals zero.

10. Subtracting a number from zero gives
    A. the same number
    B. the number's inverse
    C. zero always
    D. a positive number always (B)

Explanation : The PDF states that subtracting a number from zero gives its inverse, for example 0 - (-2) = 2.