DAV PUBLIC SCHOOL, SAMASTIPUR

1ST PERIODIC TEST 2024-25

CLASS - X

Time: 1 Hr. **MATHEMATICS** **F.M.: 20**

Note: Question number 1 to 5 carry 1 mark.

1. The sum of the exponents of the prime factors in the prime factorization of 196 is ….
   (A) 1 (B) 2 (C) 4 (D) 6
2. If the LCM of a and 18 is 36 and HCF of a and 18 is 2 then a =?
   (A) 1 (B) 2 (C) 4 (D) 3

3. The pair of linear equations 3 x + 5 y = 3 and 6 x + k y = 8, do not have a solution, if k ……

   (A) = 5 (B) = 10 (C) ≠ 10 (D) ≠ 5

4. If a pair of linear equations in two variables is consistent, then the lines represented by two equations are

   (A) intersecting (B) parallel

   (C) always coincident (D) intersecting or coincident

5. The pair of linear equations y = 0 and y = -5 has

   (A) One solution (B) two solutions

   (C) infinitely many solutions (D) no solution

6. If 217x + 131y = 913 and 131x + 217y = 827, then find the value of x + y. [2]

7. Check whether 6^n can end with the digit 0 for any natural number n. [2]

8. Show that √7 is an irrational number. [3]

9. The sum of the digits of a two digit number is 8 and the difference between the number and that formed by reversing the digits is 18. Find the number. [3]

10. Solve the following system of equations graphically. [5]

    2x+y-6=0

    4x-2y-4=0.

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