<div align="center">

ONE TWO ACADEMY

STD 10 MATHEMATICS

Algebra Part - I (Ex 3.1 - 3.8)

</div>

Total:- 25 marks   **Time:- 45 minutes**

Answer the following questions: **4 x 1 = 4**

1. If the polynomial is a perfect square then its factor will be repeated by (odd/ even) number of times.

2. Find the excluded value of $\dfrac{x + 10}{8x}$.

3. Give the relation between LCM and GCD.

4. When does rational expression is said to be in its lowest form ?

Answer any three of the following questions:-   **3 x 2 = 6**

5. Find LCM $(8x^4 y^2 , 48 x^2 y^4)$.

6. Simplify: $\dfrac{b^2 + 3b - 28}{b^2 + 4b + 4} / \dfrac{b^2 - 49}{b^2 - 5b - 14}$.

7. Find the square root of $9x^2 -24xy + 30xz - 40yz + 25 z^2 + 16y^2$.

8. Pari needs 4 hours to complete a work. His friend Yuvan needs 6 hours to complete the same work. How long will it take to complete if they work together?

Answer any three of the following questions:-   **3 x 5 = 15**

9. Find GCD $(x^4 -1, x^3 - 11x^2 + x -11)$.

10. Solve the following system of linear equations in three variables

<div align="center">

$3x - 2y + z = 2,$

$2x + 3y - z = 5,$

$x + y + z = 6.$

</div>

11. Find the values of m and n if $36x^4 - 60x^3 + 61x^2 - mx + n$ is a perfect square.

12. The sum of thrice the first number, second number and twice the third number is 5. If thrice the second number is subtracted from the sum of first number and thrice the third we get 2. If the third number is subtracted from the sum of twice the first, thrice the second, we get 1. Find the numbers.

<div align="center">

All the Best | One Two Katral maiyam

</div>