PRACTICE QUESTIONS (POLYNOMIALS) CLASS: X: MATHEMATICS

- 1. If α , β are the zeroes of the polynomial P(x) = 4x² + 3x +7, then find the value of $\frac{1}{\alpha} + \frac{1}{\beta}$.
- 2. If one zero of the quadratic polynomial $x^2 + 3x + k$ is 2, then find the value of k.
- 3. If p and q are the zeroes of the quadratic polynomial $f(x) = 2x^2 7x + 3$, find the value of p + q pq.
- **4.** If one zero of the quadratic polynomials: $kx^2 + 3x + k$ is 2, then find the value of k.
- 5. If one of the zeroes of the quadratic polynomial $(k 1)x^2 + kx + 1$ is -3, then find the value of k.
- **6.** If zeroes of $p(x) = 2x^2 7x + k$ are reciprocal of each other, then find the value of k.
- 7. If the zeroes of the quadratic polynomial $x^2 + (a + 1) x + b$ are 2 and -3 then find a and b
- **8.** Find the quadratic polynomial, the sum of whose zeroes is –5 & product is 6.
- **9.** Find the value of m if polynomial $p(x) = 4x^2 6x m$ is exactly divisible by x 3.
- **10.** Find a quadratic polynomial whose zeroes are -9 and -1/9.
- **11.** If one zero of the quadratic polynomial $2x^2 + px + 4$ is 2, find the other zero. Also, find the value of p.
- 12. Find a quadratic polynomial whose one zero is 5 and product of zeroes is 30.
- **13.** Find a quadratic polynomial whose zeroes are 3 and –5.
- **14.** Find a quadratic polynomial whose zeroes are $5 + \sqrt{2}$ and $5 \sqrt{2}$.
- **15.** If the product of the zeroes of the polynomial $ax^2 6x 6$ is 4, then find the value of a. Also find the sum of zeroes of the polynomial.
- **16.** Find the zeroes of the quadratic polynomial $x^2 2x 8$ and verify the relationship between the zeroes and the coefficients of the polynomial.
- 17. Find the zeroes of the quadratic polynomial $6x^2 3 7x$ and verify the relationship between the zeroes and the coefficients of the polynomial.
- **18.** Find the zeroes of the quadratic polynomial $2x^2 x 6$ and verify the relationship between the zeroes and the coefficients of the polynomial.
- **19.** Find the zeros of the polynomial $x^2 + \frac{1}{6}x 2$, and verify the relation between the coefficients and zeros of the polynomial.
- **20.** If the sum of the zeroes of the polynomial $p(x) = (k^2 14) x^2 2x 12$ is 1, then find the value of k.