



Laying the foundation of lifelong success

CHAPTER 2

Polynomials

(Previous Years' Questions)

Assertion - Reason

Two statements are given, one labelled as Assertion (A) and the other is labelled as Reason (R). Select the correct answer to these questions from the codes (A), (B), (C) and (D) as given below. (A) (B) (C) (D)

- (A) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A).
- (B) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).
- (C) Assertion (A) is true, but Reason (R) is false.
- (D) Assertion (A) is false, but Reason (R) is true.

1. Assertion (A): If the graph of a polynomial intersects the x -axis at exactly two points, then the number of zeroes of that polynomial is 2.

Reason (R) : The number of zeroes of a polynomial is equal to the number of points where the graph of the polynomial intersects x -axis.

(Comptt., 2024)

2. Assertion (A): If the graph of a polynomial touches x -

axis at only one point, then the polynomial cannot be a quadratic polynomial.

Reason (R) : A polynomial of degree $n(n > 1)$ can have at most n zeroes. **(2024)**

3. Assertion (A): Degree of a zero polynomial is not defined.

Reason (R) : Degree of a non-zero constant polynomial is 0. **(2024)**

4. Assertion (A): The polynomial $p(x) = x^2 + 3x + 3$ has two real zeroes.

Reason (R): A quadratic polynomial can have at most two real zeroes. **(2023)**

