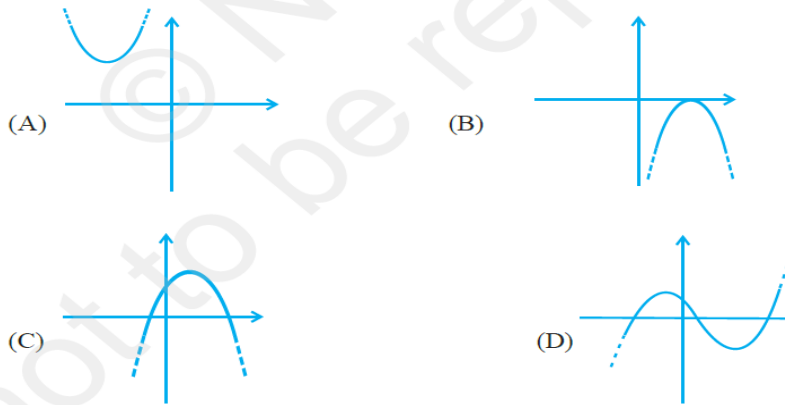


Class Xth Mathematics**Polynomials****Q1-** Which of the following is not the graph of a quadratic polynomial? (1M)**Q2-** If one of the zeros of the quadratic polynomial $(k - 1)x^2 + kx + 1$ is -3 , then find the value of k . (1M)**Q3-** If one of the zero of the quadratic polynomial $f(x) = 4x^2 - 8kx - 9$ is negative of the other, find the value of k . (2M)**Q4-** (1 + 1 = 2M)

- If $(x + 2a)$ is a factor of $x^5 - 4a^2x^3 + 2x + 2a + 3$, find a .
- Find the value of m so that $(2x - 1)$ be a factor of $8x^4 + 4x^3 - 16x^2 + 10x + m$.

Q5- Find a quadratic polynomial whose zeros are $2 + \frac{1}{\sqrt{2}}$ and $2 - \frac{1}{\sqrt{2}}$. (3M)**Q6-** Find k so that $x^2 + 2x + k$ is a factor of $2x^4 + x^3 - 14x^2 + 5x + 6$. (3M)**Q7-** If α and β are the zeros of the polynomial $x^2 + 4\sqrt{3}x - 15$, find a quadratic polynomial whose zeros are $\sqrt{3}(\alpha + \beta)$ and $\frac{\alpha}{\beta}$. (4M)**Q8-** Find all the zeros of the polynomial $2x^4 + 7x^3 - 19x^2 - 14x + 30$, if two of its zeros are $\sqrt{2}$ and $-\sqrt{2}$. (4M)