



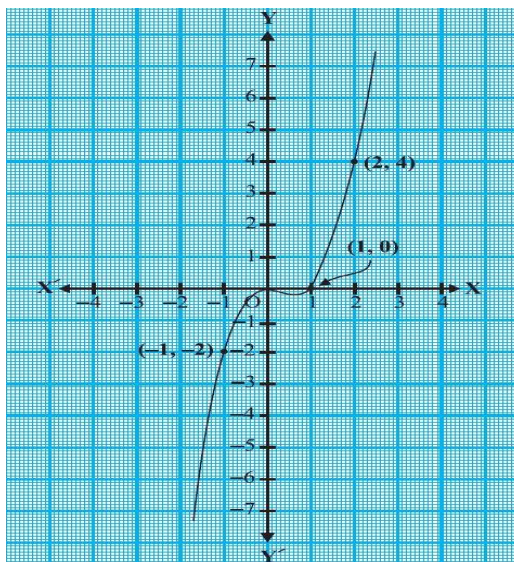
MM20

Test - Polynomials class X (2023-24)

Time 50 Minutes

**Section A – 1 Mark Each**

Q1. The graph of  $y = p(x)$  is given in the figure below, for some polynomial  $p(x)$ . The number of zeroes of  $p(x)$ , in this case is/ are \_\_\_\_\_



- (A) 0                      (B) 1                      (C) 4                      (D) 3

Q2. Zero of polynomial 3 is \_\_\_\_\_  
(A) 0                      (B) 1                      (C) No Real Zero                      (D) Every Real Number

**Section B – 2 marks each**

- Q3. Find a quadratic polynomial with  $-\frac{1}{8}$  as sum of zeroes and  $-\frac{1}{4}$  as product of its zeroes.  
Q4. Find all the zeros of  $x^3 - 4x$

**Section C – 3 marks each**

- Q5. Find the zeros of the quadratic polynomial  $x^2 - 5$  and verify the relationship between its zeros and the coefficients  
Q6. Form polynomials with zeroes  $-\frac{\sqrt{3}}{5}, \frac{\sqrt{3}}{5}$ . How many such polynomials are possible?

**Section D – 4 marks each**

- Q7. Find the zeros of the quadratic polynomial  $x^2 - 16x$  and verify the relationship between its zeros and coefficients. Also find a polynomial with zeroes double the zeroes of given polynomial.  
Q8. If  $y$  and  $z$  are zeroes of polynomial  $x^2 + x + 1$ . Find the value of  $y^2 + z^2$