20/3
X

Test - 1

Max. Time : 30 min

1) Which of the following is a polynomial ?

(1) (a) $x^2 - 5x + 4\sqrt{x} + 3$ (b) $x^{3/2} - x + x^{1/2} + 1$ (c) $\sqrt{x} + \frac{1}{\sqrt{x}}$
(d) $\sqrt{2}x^2 - 3\sqrt{3}x + \sqrt{6}$

2) Which of the following is not a polynomial ?

(1) (a) $\sqrt{3}x^2 - 2\sqrt{3}x + 5$ (b) $9x^2 - 4x + \sqrt{2}$ (c) $\frac{3}{2}x^3 + 6x^2 - \frac{1}{\sqrt{2}}x - 8$
(d) $x + \frac{3}{x}$

(1) 3) Find the zeroes of the polynomial $x^2 - 2x - 3$ are
(a) $-3, 1$ (b) $-3, -1$ (c) $3, -1$ (d) $3, 1$

(1) 4) If one zero of the polynomial $(k-1)x^2 + kx + 1$ is -4, then find the value of k (a) $-\frac{5}{4}$ (b) $\frac{5}{4}$ (c) $-\frac{4}{3}$ (d) $\frac{4}{3}$

(2) 5) Let $p(x) = x^2 - 2x - 3$, find (i) $p(3)$ and (ii) $p(-1)$

6) Find the degree of the polynomial

(2) $$\frac{-t^9 + 4t^6 + 7t^5}{t^5}.$$

(2) 7) For what value of k, -2 is a zero of the polynomial $3x^2 + 4x + 2k$?

(2) 8) If one zero of the quadratic polynomial $kx^2 + 3x + k$ is 2, then find the value of k.
