X Test – 1

Duration: 15 min
out of 12

1) Which of the following is a polynomial?
(a) $\frac{x^2}{2} - \frac{2}{x^2}$ (b) $\sqrt{2x} - 1$ (c) $x^2 + \frac{3x^{3/2}}{\sqrt{x}}$ (d) $\frac{x-1}{x+1}$

2) $\sqrt{2}$ is a polynomial of degree — (a) 2 (b) 0 (c) 1 (d) $\frac{1}{2}$

3) Degree of polynomial $4x^4 + 0x^3 + 0x^5 + 5x + 7$ is
(a) 4 (b) 5 (c) 3 (d) 7

4) Degree of a zero polynomial is (a) 0 (b) 1 (c) any natural no. (d) not defined

5) If $p(x) = x^2 - 2\sqrt{2}x + 1$, then $p(2\sqrt{2}) =$
(a) 0 (b) 1 (c) $4\sqrt{2}$ (d) $8\sqrt{2} + 1$

6) The value of polynomial $5x - 4x^2 + 3$ when $x = -1$ is
(a) -6 (b) 6 (c) 2 (d) -2

7) Give an example of a binomial of degree 10

8) For a polynomial $\frac{x^3 + 2x + 1}{5} - \frac{7}{2}x^2 - x^6$, write
(i) degree (ii) coefficient of x^3 (iii) coefficient of x^6 (iv) constant term.

SUBMIT IT IN WHATSAPP AS "PDF" file.
+NOTES

Trishni Manoj

CamScanner

X Test-1 (answers)

1) $x^2 + \frac{3x^{\frac{3}{2}}}{\sqrt{x}} = x^2 + \frac{3x^{\frac{3}{2}}}{x^{\frac{1}{2}}} = x^2 + 3x^{\frac{3}{2}-\frac{1}{2}}$

$= x^2 + 3x^{\frac{2}{2}}$

$= x^2 + 3x$, which is a polynomial

(c)

2) $\sqrt{2} = \sqrt{2}\, x^0$

degree $= 0$ (b)

3) degree $= 4$ (a)

4) degree is not defined (d)

5) $p(2\sqrt{2}) = (2\sqrt{2})^2 - 2\sqrt{2} \times 2\sqrt{2} + 1$

$= 8 - 8 + 1 = 1$ (b)

6) let $p(x) = 5x - 4x^2 + 3$

$p(-1) = 5(-1) - 4(-1)^2 + 3$

$= -5 - 4 + 3$

$= -9 + 3$

$= -6$ (a)

7) $p(x) = x^{10} + 5$

8) $\frac{x^3 + 2x + 1}{5} - \frac{7}{2}x^2 - x^6$

$= \frac{x^3}{5} + \frac{2x}{5} + \frac{1}{5} - \frac{7}{2}x^2 - x^6$

Tr Simi Manoj

(i) degree = 6

(ii) Coefficient of $x^3 = \frac{1}{5}$

(iii) Coefficient of $x^6 = -1$

(iv) Constant term = $\frac{1}{5}$

Tr Simi Manoj