Polynomials

Question 1.
For a polynomial p(x), x-2 is a factor, so p(2) is _____
(a) -1
(b) 0
(c) -2
(d) 2

Answer: (b) 0

Question 2.
A polynomial with one degree is called:
(a) Linear polynomial
(b) Quadratic polynomial
(c) Monomial
(d) Binomial

Answer: (a) Linear polynomial

Question 3.
$\sqrt{3}$ is a polynomial of degree:
(a) 2
(b) 0
(c) 1
(d) $\frac{1}{2}$

Answer: (b) 0

Question 4.
A polynomial of degree 5 in x has at most
(a) 5 terms

(b) 4 terms
(c) 6 terms
(d) 10 terms

Answer: (c) 6 terms

Question 5.
If $x + 2$ is a factor of $x^3 - 2ax^2 + 16$, then value of a is
(a) 3
(b) 1
(c) 4
(d) 2

Answer: (b) 1

Question 6.
If $3 + 5 - 8 = 0$, then the value of $(3)^3 + (5)^3 - (8)^3$ is
(a) 260
(b) –360
(c) –160
(d) 160

Answer: (b) –360

Question 7.
The value of k for which $x - 1$ is a factor of the polynomial $4x^3 + 3x^2 - 4x + k$ is :-
(a) 3
(b) 0
(c) 1
(d) – 3

Answer: (d) – 3

Question 8.
Evaluate $(11)^3$
(a) 1313
(b) 1331
(c) 3131
(d) 3113

Answer: (b) 1331

Question 9.
Factoring $3x^2-5x+2$
(a) (3x-2)(x-1)
(b) (x+2)(3x-1)
(c) (3x+2)(x-1)
(d) (x-2)(3x+1)

Answer: (a) (3x-2)(x-1)

Question 10.
x-a is a factor of $p(x) = ax^2+bx+c$. Which of the following is true?
(a) p(a) = 2
(b) p(a) = 0
(c) p(2) = 1
(d) p(b) = 0

Answer: (b) p(a) = 0

Question 11.
A binomial of degree 20 in the following is:
(a) 20x + 1
(b) $\frac{x}{20}$ + 1
(c) x^{20} +1
(d) x^2+20

Answer: (c) x^{20} +1

Question 12.
Degree of zero polynomial is:
(a) 1
(b) Any natural number
(c) 0
(d) Not defined

Answer: (d) Not defined

Question 13.
For a polynomial p(x), p(-1) and p(2) are both equal to zero .So, we can conclude that,
(a) $(x^2 + 2x – 1)$ is a factor
(b) $(x^2 – 2x + 1)$ is a factor
(c) $(x^2 – x – 2)$ is a factor
(d) $(x^2 – x + 2)$ is a factor

Answer: (c) $(x^2 – x – 2)$ is a factor

Question 14.
What is the degree of a zero polynomial?
(a) 0
(b) 1
(c) Any natural number
(d) Not defined

Answer: (d) Not defined

Question 15.
The zero of the polynomial f(x) = 2x+7 is
(a) $\frac{2}{7}$
(b) $\frac{-2}{7}$
(c) $\frac{7}{2}$
(d) $\frac{-7}{2}$

Answer: (d) $\frac{-7}{2}$

Question 16.
Find the value of a such that (x – 2) is the factor of the polynomial $x^4 + ax^3 + 2x^2 – 3x$
(a) a = $\frac{-3}{4}$
(b) a = $\frac{3}{4}$
(c) a = $\frac{-9}{4}$
(d) a = $\frac{9}{4}$

Answer: (a) a = $\frac{-3}{4}$

Question 17.
If $x + 2$ is a factor of $x^3 - 2ax^2 + 16$, then value of a is
(a) 3
(b) 1
(c) 4
(d) 2

Answer: (b) 1

Question 18.
The value of $p(t) = 2+t+2t^2-t^3$ when $t=0$ is
(a) 2
(b) 1
(c) 4
(d) 0

Answer: (a) 2

Question 19.
1+3x is a _____ polynomial.
(a) Linear
(b) Quadratic
(c) Cubic
(d) None of the above

Answer: (a) Linear

Question 20.
The value of p for which $x + p$ is a factor of $x^2+ px + 3 - p$ is:
(a) -3
(b) 3
(c) 1
(d) -1

Answer: (b) 3

Question 21.
Solution of a quadratic equation $x^2+ 5x - 6 = 0$
(a) $x = -1, x = 6$

(b) x = 1, x = -6
(c) x = 1
(d) x = 6

Answer: (b) x = 1, x = -6

Question 22.
$x^2 – x$ is _____ polynomial.
(a) Linear
(b) Quadratic
(c) Cubic
(d) None of the above

Answer: (b) Quadratic
