Objective Type Questions

Q1. Each question has four possible answers .Choose the correct answer and encircle it .

__1. The standard form of a quadratic equation is:
(a) $ax^2 + bx = 0$ (b) $ax^2 = 0$
(c) $ax^2 + bx + c = 0$ (d) $ax^2 + c = 0$

__2. The roots of the equation $x^2 + 4x - 21 = 0$ are:
(a) (7, 3) (b) (–7, 3)
(c) (–7, –3) (d) (7, –3)

__3. To make $x^2 - 5x$ a complete square we should add:
(a) 25 (b) $\frac{25}{4}$ (c) $\frac{25}{9}$ (d) $\frac{25}{16}$

__4. The factors of $x^2 - 7x + 12 = 0$ are:
(a) $(x - 4)(x + 3)$ (b) $(x - 4)(x - 3)$
(c) $(x + 4)(x + 3)$ (d) $(x + 4)(x - 3)$

__5. The quadratic formula is:
(a) $\frac{b \pm \sqrt{b^2 - 4ac}}{2a}$ (b) $\frac{-b \pm \sqrt{b^2 + 4ac}}{2a}$
(c) $\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ (d) $\frac{-b \pm \sqrt{b^2 + 4ac}}{2a}$

__6. A second degree equation is known as:
(a) Linear (b) Quadratic
(c) Cubic (e) None of these

__7. Factors of $x^3 - 1$ are:
(a) $(x - 1)(x^2 - x - 1)$ (b) $(x - 1)(x^2 + x + 1)$
(c) $(x - 1)(x^2 + x - 1)$ (d) $(x - 1)(x^2 - x + 1)$

__8. To make $49x^2 + 5x$ a complete square we must add:
(a) $\left(\frac{5}{14}\right)^2$ (b) $\left(\frac{14}{5}\right)^2$
(c) $\left(\frac{5}{7}\right)^2$ (d) $\left(\frac{7}{5}\right)^2$

__9. $lx^2 + mx + n = 0$ will be a pure quadratic equation if:
(a) $l = 0$ (b) $m = 0$
(c) $n = 0$ (d) Both l, $m = 0$

__10. If the discrimnant $b^2 - 4ac$ is negative, the roots are:
(a) Real (b) Rational
(c) Irrational (d) Imaginary

__11. If the discriminant $b^2 - 4ac$ is a perfect square, its roots will be:
(a) Imaginary (b) Rational
(c) Equal (d) Irrational

__12. The product of roots of $2x^2 - 3x - 5 = 0$ is:

(a) $-\frac{5}{2}$ (b) $\frac{5}{2}$

(c) $\frac{2}{5}$ (d) $-\frac{2}{5}$

__13. The sum of roots of $2x^2 - 3x - 5 = 0$ is:

(a) $-\frac{3}{2}$ (b) $\frac{3}{2}$

(c) $\frac{2}{3}$ (d) $-\frac{2}{3}$

__14. If 2 and – 5 are the roots of the equation, then the equations is:

(a) $x^2 + 3x + 10 = 0$ (b) $x^2 - 3x - 10 = 0$

(c) $x^2 + 3x - 10 = 0$ (d) $2x^2 - 5x + 1 = 0$

__15. If ± 3 are the roots of the equation, then the equation is:

(a) $x^2 - 3 = 0$ (b) $x^2 - 9 = 0$

(c) $x^2 + 3 = 0$ (d) $x^2 + 9 = 0$

__16. If 'S' is the sum and 'P' is the product of roots, then equation is:

(a) $x^2 + Sx + P = 0$ (b) $x^2 + Sx - P = 0$

(c) $x^2 - Sx + P = 0$ (d) $x^2 - Sx - P = 0$

__17. Roots of the equation $x^2 + x - 1 = 0$ are:

(a) Equal (b) Irrational

(c) Imaginary (d) Rational

__18. If the discriminant of an equation is zero, then the roots will be:

(a) Imaginary (b) Real

(c) Equal (d) Irrational

__19. Sum of the roots of $ax^2 - bx + c = 0$ is:

(a) $-\frac{c}{a}$ (b) $\frac{c}{a}$

(c) $-\frac{b}{a}$ (d) $\frac{b}{a}$

__20. Product of roots of ax2 + bx – c = 0 is:

(a) $\frac{c}{a}$ (b) $-\frac{c}{a}$ (c) $\frac{a}{b}$ (d) $-\frac{a}{b}$

Answers

1.	c	2.	b	3.	b	4.	b	5.	c
6.	b	7.	b	8.	a	9.	b	10.	d
11.	b	12.	a	13.	b	14.	c	15.	b
16.	c	17.	b	18.	c	19.	d	20.	b