

Chapter: 4

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1) The equation $ax^2+bx+c=0$ is quadratic if _____.

a- $a=0$ b- $a=0, b \neq 0$ c- $a \neq 0$ d- $a=0=c$

2) Quadratic Equation can be solved by _____ methods.

a- 1 b- 2 c- 3 d- Infinite.

3) $ax^2+bx+c=0$ is pure quadratic if _____.

a- $a=0$ b- $c=0$ c- $a=c=0$ d- $b=0$

4) If $ab=0$ then _____.

a- $a=0$ b- $b=0$ c- $a=0$ or $b=0$ d- $a=0$ and $b=0$

5) The solutions of an Equation are called its _____.

a- Coefficients b- Variables c- Roots d- Factors.

6) $ax^2+bx+c=0$ has solution $x =$ _____.

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- $\frac{b \pm \sqrt{b^2+4ac}}{2a}$

7) $x^2-x=2$ has solution set _____.

a- $\{-1, -2\}$ b- $\{-1, 2\}$ c- $\{1, -2\}$ d- $\{1, 2\}$

8) $2^{2x}-3 \cdot 2^x+32=0$ is _____ Equation.

a- Reciprocal b- Exponential c- Radical d- None of them.

9) Reciprocal Equation remains unchanged when x is replaced by _____.

a- $2x$ b- $\frac{1}{2x}$ c- $\frac{1}{x}$ d- $\frac{1}{x}+x$

10) Extraneous roots exist in _____ Equation.

a- Reciprocal b- Exponential c- Radical d- All

11) $\{1, \omega, \omega^2\}$ is set of all _____ roots of unity.

a- Square b- Cube c- Fourth d- n th

12) $\{\pm 1, \pm i\}$ is set of all _____ roots of unity.

a- Square b- Cube c- Fourth d- n th.

13) $\{1, -1\}$ is set of all _____ roots of unity.

a- Square b- Cube c- Fourth d- n th

14) If ω is one complex cube root of unity then other will be _____.

a- 1 b- ω c- ω^2 d- $\frac{1}{\omega^2}$

15) Sum of all cube roots of unity is _____.

a- 0 b- 1 c- 2 d- -1

16) Product of all cube roots of unity is _____.

a- 0 b- 1 c- -1 d- 2

17) $\omega^{-1} =$ _____.

a- 1 b- ω c- ω^2 d- 0

- 18) Sum of all fourth roots of unity is _____
 a- 0 b- 1 c- -1 d- i
- 19) Product of all fourth roots of unity is _____
 a- 0 b- 1 c- -1 d- -i
- 20) Quadratic Equation has degree _____ a- 0 b- 1 c- 2 d- 3
- 21) Degree of polynomial $2x^4 - 7x^2 + 2x + 1 = 0$ is _____
 a- 0 b- 2 c- 4 d- 7
- 22) Degree of polynomial is _____ number.
 a- Real b- Rational c- Natural d- Whole
- 23) If $f(x)$ is divided by $x-a$ then remainder is _____
 a- $f(a)$ b- $f(0)$ c- $a f(0)$ d- 0
- 24) If $f(a) =$ _____ then $x-a$ is factor of $f(x)$.
 a- R b- a c- 0 d- None of them.
- 25) Remainder is _____ when $x^2 + 4x - 5$ is divided by $x-1$.
 a- 0 b- 1 c- -1 d- 2
- 26) Sum of roots of $ax^2 + bx + c = 0$ is $S =$ _____
 a- $-\frac{b}{a}$ b- $\frac{c}{a}$ c- $\frac{b}{a}$ d- $-\frac{c}{a}$
- 27) Product of roots of $ax^2 + bx + c = 0$ is $P =$ _____
 a- $\frac{c}{b}$ b- $-\frac{c}{a}$ c- $-\frac{b}{a}$ d- $\frac{c}{a}$
- 28) Sum of roots of $2x^2 - 3x + 5 = 0$ is _____
 a- $-\frac{3}{2}$ b- $\frac{3}{2}$ c- $\frac{5}{2}$ d- $-\frac{5}{2}$
- 29) Product of roots of $2x^2 - 3x + 4 = 0$ is _____
 a- $\frac{3}{2}$ b- $-\frac{3}{2}$ c- 2 d- -2
- 30) Eq in x if $S =$ Sum of roots and $P =$ product of roots is _____
 a- $x^2 + Sx + P = 0$ b- $x^2 - Sx - P = 0$ c- $x^2 - Sx + P = 0$ d- $x^2 + Sx - P = 0$
- 31) If 4, 3 are roots of Eq then Eq is _____
 a- $x^2 - 7x + 12 = 0$ b- $x^2 - 7x - 12 = 0$ c- $x^2 + 7x + 12 = 0$ d- $x^2 + 7x - 12 = 0$
- 32) $b^2 - 4ac$ is defined by _____ of $ax^2 + bx + c = 0$
 a- Discriminant b- Remainder c- Root d- Solution.
- 33) Discriminant of $ax^2 + bx + c = 0$ is _____
 a- $b^2 + 4ac$ b- $b^2 - 4bc$ c- $b^2 - 4ab$ d- $b^2 - 4ac$
- 32) Roots will be equal if _____
 a- $b^2 - 4ac > 0$ b- $b^2 - 4ac < 0$
 c- $b^2 - 4ac = 0$ d- $b^2 - 4ac$ is a Square

33) Roots are real and distinct if _____ .
a- $b^2 - 4ac < 0$ b- $b^2 - 4ac > 0$ c- $b^2 - 4ac = 0$ d- $b^2 - 4ac$ is square

34) Roots are imaginary and Conjugate if _____ .
a- $b^2 - 4ac > 0$ b- $b^2 - 4ac = 0$ c- $b^2 - 4ac < 0$ d- $b^2 - 4ac$ is square

35) Roots will be rational if _____ .
a- $b^2 - 4ac < 0$ b- $b^2 - 4ac = 0$ c- $b^2 - 4ac > 0$ d- $b^2 - 4ac$ is a square

36) Eq with roots $2w$ and $2w^2$ is _____ invariable x .
a- $x^2 - 2x + 4 = 0$ b- $x^2 + 2x + 4 = 0$ c- $x^2 - 2x - 4 = 0$ d- $x^2 + 2x - 4 = 0$

37) Roots of $x^2 + 2x + 3 = 0$ are _____ .
a- Rational b- Real and unequal c- Imaginary d- Equal

38) $2x^2 + 5x - 1 = 0$ has _____ roots.
a- Real and unequal b- Equal c- Imaginary d- Rational

39) Roots of $2x^2 - 7x + 3 = 0$ are _____ .
a- Rational b- Equal c- Imaginary d- Real and unequal

40) Roots of $9x^2 - 12x + 4 = 0$ are _____ .
a- Rational b- Real and unequal c- Equal d- Imaginary

41) Equations have common solution are called _____ Equations.
a- Exponential b- Reciprocal c- Simultaneous d- Radical

42) One root of $x^2 - 3x + a = 0$ is 2 then $a =$ _____ .
a- -2 b- 2 c- 1 d- -1

43) Equal roots of $ax^2 + bx + c = 0$ are _____ .
a- $\left\{ \frac{a}{2b}, \frac{a}{2b} \right\}$ b- $\left\{ \frac{2b}{a}, \frac{2b}{a} \right\}$ c- $\left\{ \frac{2a}{b}, \frac{2a}{b} \right\}$ d- $\left\{ \frac{-b}{2a}, \frac{-b}{2a} \right\}$

44) Solutions of $2x^4 - 32 = 0$ are _____ .
a- $\{2, -2, i, -i\}$ b- $\{\pm 2, \pm 2i\}$ c- $\{\pm 2, \pm 3i\}$ d- $\{\pm 2, \pm 4i\}$

Chapter: 5

0312-7160828

1) Fraction $\frac{P(x)}{Q(x)}$ for $Q(x) \neq 0$ is called _____ Fraction.
a- Rational b- Irrational c- Algebraic d- Proper

2) $\frac{P(x)}{Q(x)}$ for $Q(x) = 0$ is proper if _____ .
a- Degree of $P(x) >$ Degree of $Q(x)$ b- Degree of $P(x) <$ Degree of $Q(x)$ c- Degree of $P(x) =$ Degree of $Q(x)$ d- None of them

3) Degree of Numerator \geq Degree of Denominator in _____ Fraction.
a- Fraction b- Proper c- Improper d- Rational

4) $\frac{3}{x-1}$ is _____ Fraction.
a- Proper b- Improper c- Irrational d- Compound