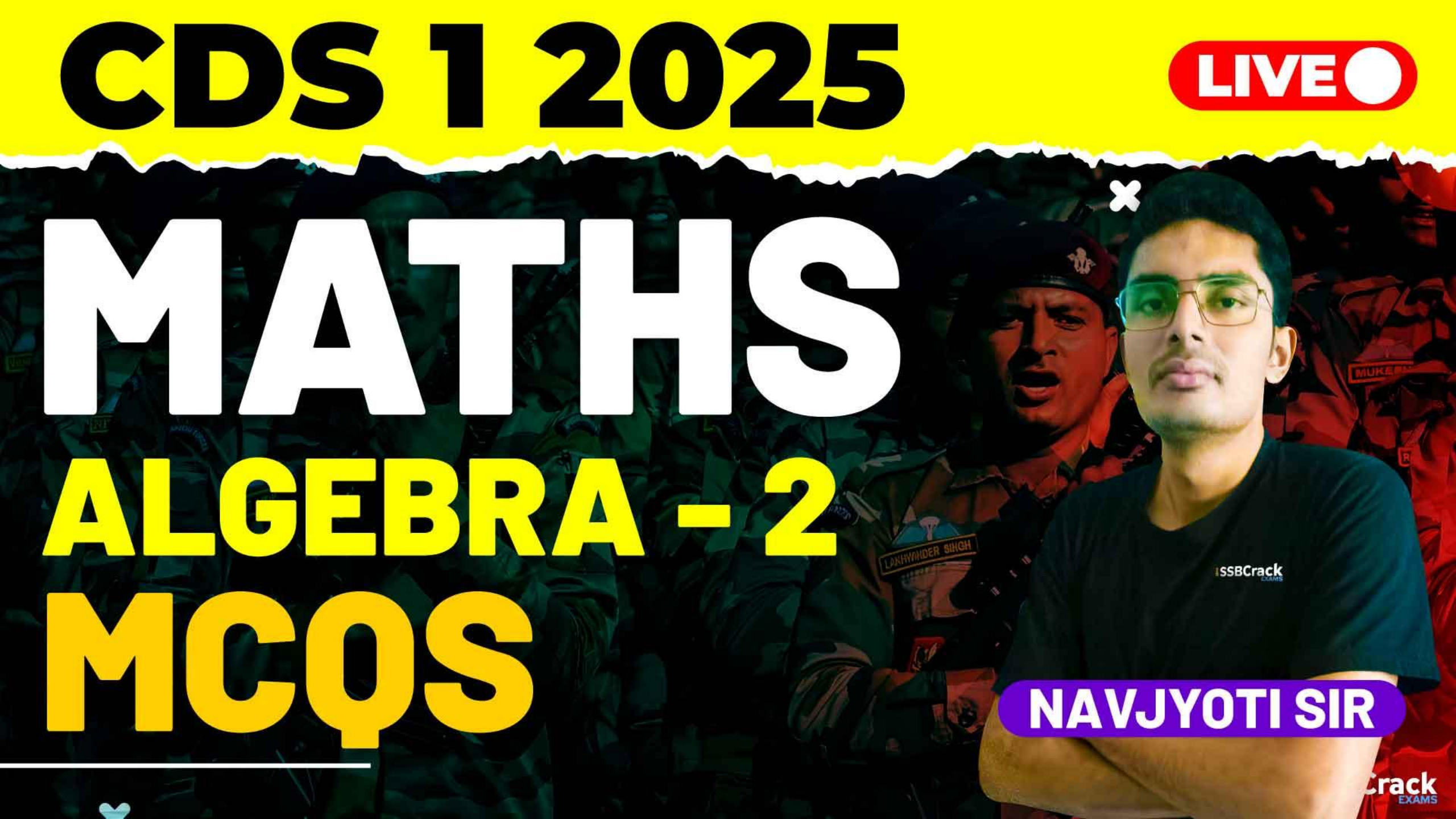
CDS 1 2025

LIVE

MATHS

ALGEBRA - 2

MCQS



18 Feb 2025 Live Classes Schedule

9:00AM	18 FEBRUARY 2025 DAILY DEFENCE UPDATES	DIVYANSHU SIR
10:00AM	18 FEBRUARY 2025 DAILY CURRENT AFFAIRS	RUBY MA'AM

SSB INTERVIEW LIVE CLASSES

9:30AM	COMPLETE SCREENING TEST	ANURADHA MA'AM

AFCAT 1 2025 LIVE CLASSES

3:00PM	STATIC GK - COUNTRY CAPITAL CURRENCY	DIVYANSHU SIR
1:00PM	ENGLISH - ONE WORD SUBSTITUTION	ANURADHA MA'AM

NDA 1 2025 LIVE CLASSES

10:00AM	MATHS - APPLICATION OF DERIVATIVES	NAVJYOTI SIR
11:30AM	GK - CLIMATOLOGY - CLASS 1	RUBY MA'AM
1:00PM	BIOLOGY - CLASS 7	SHIVANGI MA'AM
4:30PM	ENGLISH - ORDERING OF WORDS - CLASS 2	ANURADHA MA'AM

CDS 1 2025 LIVE CLASSES

11:30AM	GK - CLIMATOLOGY - CLASS 1	RUBY MA'AM
1:00PM	BIOLOGY - CLASS 7	SHIVANGI MA'AM
4:30PM	ENGLISH - ORDERING OF WORDS - CLASS 2	ANURADHA MA'AM
5:30PM	MATHS - ALGEBRA - CLASS 2	NAVJYOTI SIR

PYQ – 2024 - II

A real number x is such that the sum of the number and four times its square is the least. What is that number ?

(a) – 0·625

(b) – 0·125

(c) 0·125

(d) 1

$x + 4x^2 = 0$ (Quadratic eqn.) $(ax^2 + bx + c = 0)$

Min. value of the expression will come at,

$$x = \frac{-b}{2a} = \frac{-1}{2 \times 4} = -\frac{1}{8} = -0{\cdot}125$$

(OR)

(a) $-\frac{5}{8} \longrightarrow -\frac{5}{8} + 4\left(\frac{5}{8}\right)^2 = \frac{-40 + 100}{64} = \frac{60}{64}$

(b) $-\frac{1}{8} \longrightarrow -\frac{1}{8} + 4\left(\frac{-1}{8}\right)^2 = \frac{-8 + 4}{64} = \frac{4}{64}$

PYQ – 2024 - II

A real number x is such that the sum of the number and four times its square is the least. What is that number ?

(a) $-0{\cdot}625$

(b) $-0{\cdot}125$

(c) $0{\cdot}125$

(d) 1

Ans: B

PYQ – 2024 - II

Let k be a positive integer. What is the quotient when

$x^{8k+3} + x^{8k+6} + x^{8k+9} + x^{8k+12}$

is divided by $(1 + x^3)(1 + x^6)$?

(a) x^{8k}

(b) x^{8k+1}

(c) x^{8k+2}

(d) x^{8k+3}

$$x^{8k+3}(1 + x^3) + x^{8k+9}(1 + x^3)$$

$$(1 + x^3)\, x^{8k+3}(1 + x^6)$$

$$(1 + x^3)(1 + x^6)\, \underline{x^{8k+3}}$$

PYQ – 2024 - II

Let k be a positive integer. What is the quotient when

$x^{8k+3} + x^{8k+6} + x^{8k+9} + x^{8k+12}$

is divided by $(1 + x^3)(1 + x^6)$?

(a) x^{8k}

(b) x^{8k+1}

(c) x^{8k+2}

(d) x^{8k+3}

Ans: D

PYQ – 2024 - II

If

$$\left(x+\frac{1}{yz}\right)-\left(y+\frac{1}{zx}\right)=$$

$$\left(y+\frac{1}{zx}\right)-\left(z+\frac{1}{xy}\right)$$

and $x+z \neq 2y$, then what is xyz equal to ?

(a) –3

(b) –1

(c) 1

(d) 3

$$\frac{xyz+1}{yz}-\left(\frac{yzx+1}{zx}\right)=\frac{xyz+1}{zx}-\left(\frac{xyz+1}{xy}\right)$$

$$\frac{x^2yz+x-xy^2z-y}{xyz}=\frac{xy^2z+y-xyz^2-z}{xyz}$$

$$x^2yz+xyz^2+x-y=2xy^2z+y-z$$

$$x^2yz+xyz^2-2x^2yz=2y-x-z$$

$$x^2yz + xyz^2 - 2x^2yz = 2y - x - z$$

$$xyz(x + z - 2y) = -1(-2y + x + z)$$

$$xyz = -1$$

PYQ – 2024 - II

If

$$\left(x+\frac{1}{yz}\right)-\left(y+\frac{1}{zx}\right)=$$

$$\left(y+\frac{1}{zx}\right)-\left(z+\frac{1}{xy}\right)$$

and $x+z \neq 2y$, then what is xyz equal to ?

(a) -3

(b) -1

(c) 1

(d) 3

Ans: B

PYQ – 2024 - II

If $x^3 + px^2 + qx + r$ is an integer for all integral values of x, then consider the following statements :

I. p must be an integer

II. q must be an integer

III. r must be an integer

Which of the statements given above is/are correct ?

(a) I and II only

(b) III only

(c) I, II and III

(d) None of the statements is correct

$x^3 + px^2 + qx + r$

qx — will be integer: $q = \frac{1}{x}$

$p = \frac{1}{2}$; $x = 2$

px^2 will be integer: $p = \frac{1}{x^2}$, $p = \frac{1}{x}$

PYQ – 2024 - II

If $x^3 + px^2 + qx + r$ is an integer for all integral values of x, then consider the following statements :

I. p must be an integer

II. q must be an integer

III. r must be an integer

Which of the statements given above is/are correct ?

(a) I and II only

(b) III only

(c) I, II and III

(d) None of the statements is correct

Ans: D

If the sum and product of the roots of a quadratic equation are 2 and -100 respectively, then which one of the following is correct ?

(a) There are infinitely many such equations having different roots.

(b) There is only one such equation which is $x^2 + 2x - 100 = 0$.

(c) There is only one such equation which is $x^2 - 2x - 100 = 0$.

(d) There is no such equation.

PYQ – 2024 - I

$\alpha + \beta = 2$

$\alpha\beta = -100$

$x^2 - (\alpha+\beta)x + \alpha\beta = 0$

$x^2 - (2)x + (-100) = 0$

$\Rightarrow x^2 - 2x - 100 = 0$

PYQ – 2024 - I

If the sum and product of the roots of a quadratic equation are 2 and -100 respectively, then which one of the following is correct ?

(a) There are infinitely many such equations having different roots.

(b) There is only one such equation which is $x^2 + 2x - 100 = 0$.

(c) There is only one such equation which is $x^2 - 2x - 100 = 0$.

(d) There is no such equation.

Ans: C

PYQ – 2024 - I

If 2 is a zero of the polynomial $p(x) = x^3 + 3x^2 - 6x - a$, then what is the sum of the squares of the other zeros of the polynomial ?

(a) 10

(b) 17

(c) 21

(d) 37

$p(2) = 0$

$2^3 + 3(2)^2 - 6(2) - a = 0$

$8 + 12 - 12 - a = 0$

$a = 8$

$p(x) = x^3 + 3x^2 - 6x - 8$

$= (x-2)(x^2 + 5x + 4)$

$-1, -4$

$(-1)^2 + (-4)^2 = 17$

$$x-2 \;\overline{)\; x^3 + 3x^2 - 6x - 8 \;\big|\; x^2 + 5x + 4}$$

$x^3 - 2x^2$

$(+)$

$5x^2 - 6x$

$5x^2 - 10x$

$4x - 8$

PYQ – 2024 - I

If 2 is a zero of the polynomial $p(x) = x^3 + 3x^2 - 6x - a$, then what is the sum of the squares of the other zeros of the polynomial ?

(a) 10

(b) 17

(c) 21

(d) 37

Ans: B

PYQ – 2024 - I

Suppose $p(x) = x^4 + a_3x^3 + a_2x^2 + a_1x + a_0$ and $q(x) = x^4 + b_3x^3 + b_2x^2 + b_1x + b_0$ are the polynomials. If $\alpha, \beta, \gamma, \delta$ are zeros of $p(x)$ and $\alpha, \beta, \gamma, \lambda$ are zeros of $q(x)$, then what is $\dfrac{p(x) - q(x)}{(x-\alpha)(x-\beta)(x-\gamma)}$ equal to ?

(a) $-\lambda + \delta$

(b) $\lambda - \delta$

(c) $\lambda + \delta$

(d) $-\lambda - \delta$

$$\frac{(x-\alpha)(x-\beta)(x-\gamma)(x-\delta) - (x-\alpha)(x-\beta)(x-\gamma)(x-\lambda)}{(x-\alpha)(x-\beta)(x-\gamma)}$$

$$= \frac{(x-\alpha)(x-\beta)(x-\gamma)}{(x-\alpha)(x-\beta)(x-\gamma)}\left[x-\delta-(x-\lambda)\right] = \lambda - \delta$$

(Factor theorem)

PYQ – 2024 - I

Suppose $p(x) = x^4 + a_3x^3 + a_2x^2 + a_1x + a_0$ and $q(x) = x^4 + b_3x^3 + b_2x^2 + b_1x + b_0$ are the polynomials. If $\alpha, \beta, \gamma, \delta$ are zeros of $p(x)$ and $\alpha, \beta, \gamma, \lambda$ are zeros of $q(x)$, then what is $\frac{p(x) - q(x)}{(x-\alpha)(x-\beta)(x-\gamma)}$ equal to ?

(a) $-\lambda + \delta$

(b) $\lambda - \delta$

(c) $\lambda + \delta$

(d) $-\lambda - \delta$

Ans: B

PYQ – 2024 - I

If the equation $x \cos\theta = x^2 + p$ has a real solution for every θ where $0 \le \theta \le \frac{\pi}{4}$, then which one of the following is correct ?

(a) $p = 1/8$

(b) $p \le 1/8$

(c) $p \ge 1/8$

(d) $p \le 1/4$

$x\cos\theta = x^2 + p \quad \left(0 \le \theta \le \frac{\pi}{4}\right)$

$x^2 - x\cos\theta + p = 0$

$D = (-\cos\theta)^2 - 4 \times 1 \times p$

$= \cos^2\theta - 4p$

$\cos^2\theta - 4p \ge 0$

$4p \le \cos^2\theta$

$p \le \frac{1}{4}(\cos^2\theta)$

$p \le \frac{1}{4}\left(\frac{1}{2}\right) \Rightarrow p \le \frac{1}{8}$

$\cos^2 0^\circ = 1$

$\cos^2\left(\frac{\pi}{4}\right) = \frac{1}{2}$

PYQ – 2024 - I

If the equation $x \cos \theta = x^2 + p$ has a real solution for every θ where $0 \leq \theta \leq \frac{\pi}{4}$, then which one of the following is correct ?

(a) $p = 1/8$

(b) $p \leq 1/8$

(c) $p \geq 1/8$

(d) $p \leq 1/4$

Ans: B

If $p = \sqrt[3]{\left(a + \sqrt{a^2 + b^3}\right)} + \sqrt[3]{\left(a - \sqrt{a^2 + b^3}\right)}$

PYQ – 2024 - I

then what is $p^3 + 3bp$ equal to ?

(a) $-2a$

(b) a

(c) $2a$

(d) $3a$

$b = 0$; $a = 1$

$p = \sqrt[3]{1+1} + \sqrt[3]{1-1}$

$p = \sqrt[3]{2}$

$p^3 + 3bp = 2 + 3(0)$

$= 2$

(a) -2

(b) 1

(c) 2 — ✓

(d) 3

If $p = \sqrt[3]{\left(a + \sqrt{a^2 + b^3}\right)} + \sqrt[3]{\left(a - \sqrt{a^2 + b^3}\right)}$

PYQ – 2024 - I

then what is $p^3 + 3bp$ equal to ?

(a) $-2a$

(b) a

(c) $2a$

(d) $3a$

Ans: C

Q) If $a^2 = b + c,\ b^2 = c + a,\ c^2 = a + b$, then the value of

$$\frac{1}{1+a} + \frac{1}{b+1} + \frac{1}{1+c}$$

(a) abc (b) $a^2 b^2 c^2$ (c) 1 (d) 0

$a^2 + a = a + b + c$

$a(a+1) = a + b + c$

$1 + a = \frac{a+b+c}{a}$

$1 + b = \frac{a+b+c}{b}$; $1 + c = \frac{a+b+c}{c}$

$$\frac{1}{1+a} + \frac{1}{1+b} + \frac{1}{1+c}$$

$$\frac{a}{a+b+c} + \frac{b}{a+b+c} + \frac{c}{a+b+c} = 1$$

Q) If $a^2 = b + c, b^2 = c + a, c^2 = a + b$, then the value of

$$\frac{1}{1+a} + \frac{1}{b+1} + \frac{1}{1+c}$$

(a) abc (b) $a^2 b^2 c^2$ (c) 1 (d) 0

Ans: (c)

Q) If $x+y+z=11, x^2+y^2+z^2=133$ and $x^3+y^3+z^3=881$, then the value of $\sqrt[3]{xyz}$ is:

(a) -6 (b) 6 (c) -8 (d) 8

Q) If $x+y+z=11, x^2+y^2+z^2=133$ and $x^3+y^3+z^3=881$, then the value of $\sqrt[3]{xyz}$ is:

(a) -6 (b) 6 (c) -8 (d) 8

Ans: (a)

Q) If α and β are the roots of the equation $x^2 - 6x + 6 = 0$, what is $\alpha^3 + \beta^3 + \alpha^2 + \beta^2 + \alpha + \beta$ equal to?

(a) 150
(b) 138
(c) 138
(d) 124

Q) If α and β are the roots of the equation $x^2 - 6x + 6 = 0$, what is $\alpha^3 + \beta^3 + \alpha^2 + \beta^2 + \alpha + \beta$ equal to?

(a) 150
(b) 138
(c) 138
(d) 124

Ans: (b)

Q) If $x_1x_2x_3 = 4(4 + x_1 + x_2 + x_3)$, then what is the value of $[1/(2 + x_1)] + [1/(2 + x_2)] + [1/(2 + x_3)]$?

(a) 1 (b) 1/2 (c) 2 (d) 1/3

Q) If $x_1x_2x_3 = 4(4 + x_1 + x_2 + x_3)$, then what is the value of $[1/(2 + x_1)] + [1/(2 + x_2)] + [1/(2 + x_3)]$?

(a) 1 (b) 1/2 (c) 2 (d) 1/3

Ans: (b)

Q) If $P = 7 + 4\sqrt{3}$ and $PQ = 1$, then what is the value of $1/P^2 + 1/Q^2$?

(a) 196 (b) 194 (c) 206 (d) 182

Q) If $P = 7 + 4\sqrt{3}$ and $PQ = 1$, then what is the value of $1/P^2 + 1/Q^2$?

(a) 196 (b) 194 (c) 206 (d) 182

Ans: (b)

Q) If $x + y + z = 0$, then what is the value of $(3y^2 + x^2 + z^2)/(2y^2 - xz)$?

(a) 2 (b) 1 (c) 3/2 (d) 5/3

Q) If $x + y + z = 0$, then what is the value of $(3y^2 + x^2 + z^2)/(2y^2 - xz)$?

(a) 2 (b) 1 (c) 3/2 (d) 5/3

Ans: (a)

Q) If $a^2 + b^2 + c^2 + 96 = 8(a + b - 2c)$, then $\sqrt{ab - bc + ca}$ is equal to:

(a) 6 (b) $2\sqrt{2}$ (c) 4 (d) $2\sqrt{3}$

Q) If $a^2 + b^2 + c^2 + 96 = 8(a + b - 2c)$, then $\sqrt{ab - bc + ca}$ is equal to:

(a) 6 (b) $2\sqrt{2}$ (c) 4 (d) $2\sqrt{3}$

Ans: (c)

Q) If $\sqrt{86-60\sqrt{2}} = a - b\sqrt{2}$, then what will be the value of $\sqrt{a^2+b^2}$, correct to one decimal place?

(a) 8.4 (b) 8.2 (c) 7.8 (d) 7.2

Q) If $\sqrt{86-60\sqrt{2}} = a - b\sqrt{2}$, then what will be the value of $\sqrt{a^2+b^2}$, correct to one decimal place?

(a) 8.4 (b) 8.2 (c) 7.8 (d) 7.2

Ans: (c)

Q) If $x = 11$, the value of $x^5 - 12x^4 + 12x^3 - 12x^2 + 12x - 1$ is

(a) 11 (b) 10 (c) 12 (d) -10

Q) If $x = 11$, the value of $x^5 - 12x^4 + 12x^3 - 12x^2 + 12x - 1$ is

(a) 11 (b) 10 (c) 12 (d) -10

Ans: (b)

Q) If $a+\frac{1}{b}=b+\frac{1}{c}=c+\frac{1}{a}$ (where $a \neq b \neq c$), then abc is equal to

(a) $+1$
(b) -1
(c) $+1$ & -1
(d) None of the options

Q) If $a+\frac{1}{b}=b+\frac{1}{c}=c+\frac{1}{a}$ (where $a \neq b \neq c$), then abc is equal to

(a) $+1$
(b) -1
(c) $+1$ & -1
(d) None of the options

Ans: (c)

Q) If $x-\sqrt{3}-\sqrt{2}=0$ and $y-\sqrt{3}+\sqrt{2}=0$ then value of $(x^3-20\sqrt{2})-(y^3+2\sqrt{2})$

(a) 3 (b) 2 (c) 0 (d) 1

Q) If $x-\sqrt{3}-\sqrt{2}=0$ and $y-\sqrt{3}+\sqrt{2}=0$ then value of $(x^3-20\sqrt{2})-(y^3+2\sqrt{2})$

(a) 3 (b) 2 (c) 0 (d) 1

Ans: (c)

Q) If $a+b+c+d=4$ then the value of

$$\frac{1}{(1-a)(1-b)(1-c)}+\frac{1}{(1-b)(1-c)(1-d)}$$

$$+\frac{1}{(1-c)(1-d)(1-a)}+\frac{1}{(1-d)(1-a)(1-b)} \text{ is.}$$

(a) 0 (b) 1 (c) 4 (d) $1+abcd$

Q) If $a+b+c+d=4$ then the value of

$$\frac{1}{(1-a)(1-b)(1-c)}+\frac{1}{(1-b)(1-c)(1-d)}$$

$$+\frac{1}{(1-c)(1-d)(1-a)}+\frac{1}{(1-d)(1-a)(1-b)} \text{ is.}$$

(a) 0 (b) 1 (c) 4 (d) $1+abcd$

Ans: (a)

Q) If $(x^3 - y^3) : (x^2 + xy + y^2) = 5 : 1$ and

$(x^2 - y^2) : (x - y) = 7 : 1$, then the ratio $2x : 3y$ equals

(a) $2 : 3$ (b) $4 : 1$ (c) $4 : 3$ (d) $3 : 2$

Q) If $(x^3 - y^3) : (x^2 + xy + y^2) = 5 : 1$ and

$(x^2 - y^2) : (x - y) = 7 : 1$, then the ratio $2x : 3y$ equals

(a) $2:3$ (b) $4:1$ (c) $4:3$ (d) $3:2$

Ans: (b)

Q) If x, y, z are the three factors of $a^3 - 7a - 6$, then value of $x + y + z$ will be

(a) 3a (b) 3 (c) 6 (d) a

Q) If x, y, z are the three factors of $a^3 - 7a - 6$, then value of $x + y + z$ will be

(a) $3a$ (b) 3 (c) 6 (d) a

Ans: (a)

Q) If $x = a^{1/2} + a^{-1/2}$, $y = a^{1/2} - a^{-1/2}$, then value of

$$(x^4 - x^2y^2 - 1) + (y^4 - x^2y^2 + 1)$$

(a) 16 (b) 14 (c) 12 (d) 13

Q) If $x = a^{1/2} + a^{-1/2}$, $y = a^{1/2} - a^{-1/2}$, then value of

$$(x^4 - x^2y^2 - 1) + (y^4 - x^2y^2 + 1)$$

(a) 16 (b) 14 (c) 12 (d) 13

Ans: (a)

Q) If $a + b = 1$, find the value of $a^3 + b^3 - ab - (a^2 - b^2)^2$

(a) 0 (b) 1 (c) –1 (d) 2

Q) If $a + b = 1$, find the value of $a^3 + b^3 - ab - (a^2 - b^2)^2$

(a) 0 (b) 1 (c) –1 (d) 2

Ans: (a)

Q) If $(3x-2y):(2x+3y)=5:6$, then one of value of $\left(\frac{\sqrt[3]{x}+\sqrt[3]{y}}{\sqrt[3]{x}-\sqrt[3]{y}}\right)^2$ is

(a) 25 (b) $\frac{1}{5}$ (c) $\frac{1}{25}$ (d) 5

Q) If $(3x-2y):(2x+3y)=5:6$, then one of value of $\left(\frac{\sqrt[3]{x}+\sqrt[3]{y}}{\sqrt[3]{x}-\sqrt[3]{y}}\right)^2$ is

(a) 25 (b) $\frac{1}{5}$ (c) $\frac{1}{25}$ (d) 5

Ans: (a)

Q) If $a + b + c = 0$, find the value of $\frac{a+b}{c} - \frac{2b}{c+a} + \frac{b+c}{a}$

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

Q) If $a+b+c=0$, find the value of $\frac{a+b}{c}-\frac{2b}{c+a}+\frac{b+c}{a}$

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

Ans: (a)

Q) If $x^3 + y^3 + z^3 = 3(1 + xyz)$, $P = y + z - x$, $Q = z + x - y$ and $R = x + y - z$, then what is the value of $P^3 + Q^3 + R^3 - 3PQR$?

(a) 9 (b) 8 (c) 12 (d) 6

Q) If $x^3 + y^3 + z^3 = 3(1 + xyz)$, $P = y + z - x$, $Q = z + x - y$ and $R = x + y - z$, then what is the value of $P^3 + Q^3 + R^3 - 3PQR$?

(a) 9 (b) 8 (c) 12 (d) 6

Ans: (c)

Q) Which one is one of the factors of

$$x^2+\frac{1}{x^2}+8\left(x+\frac{1}{x}\right)+14\ ?$$

(a) $x+\frac{1}{x}+1$

(b) $x+\frac{1}{x}+3$

(c) $x+\frac{1}{x}+6$

(d) $x+\frac{1}{x}+7$

Q) Which one is one of the factors of

$$x^2+\frac{1}{x^2}+8\left(x+\frac{1}{x}\right)+14\ ?$$

(a) $x+\frac{1}{x}+1$

(b) $x+\frac{1}{x}+3$

(c) $x+\frac{1}{x}+6$

(d) $x+\frac{1}{x}+7$

Ans: (c)

Q) If $x + \frac{1}{x} = \sqrt{3}$, then the value of $x^{18} + x^{12} + x^6 + 1$ is

(a) 0 (b) 1 (c) 2 (d) 3

Q) If $x + \frac{1}{x} = \sqrt{3}$, then the value of $x^{18} + x^{12} + x^6 + 1$ is

(a) 0 (b) 1 (c) 2 (d) 3

Ans: (a)

Q) If $x^2 + y^2 + z^2 = xy + yx + zx$, then the value of

$$\frac{3x^4 + 7y^4 + 5z^4}{5x^2y^2 + 7y^2z^2 + 3z^2x^2}$$ is

(a) 1 (b) 2 (c) –1 (d) 0

Q) If $x^2+y^2+z^2=xy+yx+zx$, then the value of

$$\frac{3x^4+7y^4+5z^4}{5x^2y^2+7y^2z^2+3z^2x^2}$$ is

(a) 1 (b) 2 (c) –1 (d) 0

Ans: (a)

Q) If $x^4 + \frac{1}{x^4} = 119$ amd $x > 1$, then the value of $x^3 - \frac{1}{x^3}$ is

(a) 54 (b) 18 (c) 72 (d) 36

Q) If $x^4 + \frac{1}{x^4} = 119$ amd $x > 1$, then the value of $x^3 - \frac{1}{x^3}$ is

(a) 54 (b) 18 (c) 72 (d) 36

Ans: (d)

Q) Consider the following statements :

1 The equation $1990x - 173y = 11$ has no solution in integers for x and y.

2. The equation $3x - 12y = 7$ has no solution in integers for x and y.

Which of the above statements is/are correct?

(a) 1 only (b) 2 only

(c) Both 1 and 2 (d) Neither 1 nor 2

Q) Consider the following statements :

1 The equation $1990x - 173y = 11$ has no solution in integers for x and y.

2. The equation $3x - 12y = 7$ has no solution in integers for x and y.

Which of the above statements is/are correct?

(a) 1 only (b) 2 only

(c) Both 1 and 2 (d) Neither 1 nor 2

Ans: (c)

Q) If $a^2 - by - cz = 0$, $ax - b^2 + cz = 0$ and $ax + by - c^2 = 0$, then the value of $\frac{x}{a+x} + \frac{y}{b+y} + \frac{z}{c+z}$ will be

(a) $a + b + c$
(b) 3
(c) 1
(d) 0

Q) If $a^2 - by - cz = 0$, $ax - b^2 + cz = 0$ and $ax + by - c^2 = 0$, then the value of $\frac{x}{a+x} + \frac{y}{b+y} + \frac{z}{c+z}$ will be

(a) $a + b + c$
(b) 3
(c) 1
(d) 0

Ans: (c)

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