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MULTIPLE CHOICE TYPE QUESTIONS

For CBSE 2026 Exams - Mathematics (041) - Class 12

Chapter 01 - Matrices & Determinants

Select the correct option (s) in the followings.

Q01. If A and B are two matrices such that $A+B$ and AB are both defined, then
(a) A and B can be any matrices
(b) A and B are square matrices not necessarily of same order
(c) Number of columns in A = Number of rows in B
(d) A and B are square matrices of same order.

Q02. If $A=\begin{bmatrix}2 & -1\\ 3 & 1\end{bmatrix}$ then, AA^T is equal to

(a) $\begin{bmatrix}5 & 5\\ 10 & 5\end{bmatrix}$ (b) $5\begin{bmatrix}1 & 1\\ 1 & 2\end{bmatrix}$ (c) $5\ I_2$ (d) $\begin{bmatrix}1 & 1\\ 1 & 2\end{bmatrix}$

Q03. Let $|A|=\begin{vmatrix}a & b & c\\ d & e & f\\ g & h & i\end{vmatrix}=4$. Then $|adj.A|=$

(a) 16 (b) 2 only (c) –2 only (d) –16

Q105. If $\begin{bmatrix}x & 2\\ 3 & x-1\end{bmatrix}$ is a singular matrix, then the product of all possible values of x is

(a) 6 (b) –6 (c) 0 (d) –7

Q106. If $\left|\frac{A^{-1}}{2}\right|=\frac{1}{k|A|}$, where A is a 3×3 matrix, then the value of k is

(a) $\frac{1}{8}$ (b) 8 (c) 2 (d) $\frac{1}{2}$

Q107. If $A=\begin{bmatrix}0 & 1\\ 0 & 0\end{bmatrix}$, then A^{2023} is equal to

(a) $\begin{bmatrix}0 & 1\\ 0 & 0\end{bmatrix}$ (b) $\begin{bmatrix}0 & 2023\\ 0 & 0\end{bmatrix}$ (c) $\begin{bmatrix}0 & 0\\ 0 & 0\end{bmatrix}$ (d) $\begin{bmatrix}2023 & 0\\ 0 & 2023\end{bmatrix}$

Q108. If $\begin{bmatrix}2 & 0\\ 5 & 4\end{bmatrix}=P+Q$, where P is a symmetric and Q is a skew symmetric matrix, then $Q=$

(a) $\begin{bmatrix}2 & 5/2\\ 5/2 & 4\end{bmatrix}$ (b) $\begin{bmatrix}0 & -5/2\\ 5/2 & 0\end{bmatrix}$ (c) $\begin{bmatrix}0 & 5/2\\ -5/2 & 0\end{bmatrix}$ (d) $\begin{bmatrix}2 & -5/2\\ 5/2 & 4\end{bmatrix}$

Q110. If $|A|=|kA|$, where A is a square matrix of order 2, then sum of all possible value of k is

(a) 1 (b) –1 (c) 2 (d) 0

Q111. Number of symmetric matrices of order 3×3 with each entry 1 or –1 is

(a) 512 (b) 64 (c) 8 (d) 4

Q112. If $A=\begin{bmatrix}1 & 4 & x\\ z & 2 & y\\ -3 & -1 & 3\end{bmatrix}$ is a symmetric matrix, then the value of $x+y+z$ is

(a) 10 (b) 6 (c) 8 (d) 0

Q113. Let A be the area of a triangle having vertices $(x_1, y_1), (x_2, y_2)$ and (x_3, x_3). Which of the following is correct?

(a) $\begin{vmatrix}x_1 & y_1 & 1\\ x_2 & y_2 & 1\\ x_3 & y_3 & 1\end{vmatrix}=\pm A$ (b) $\begin{vmatrix}x_1 & y_1 & 1\\ x_2 & y_2 & 1\\ x_3 & y_3 & 1\end{vmatrix}=\pm 2A$

(c) $\begin{vmatrix}x_1 & y_1 & 1\\ x_2 & y_2 & 1\\ x_3 & y_3 & 1\end{vmatrix}=\pm\frac{A}{2}$ (d) $\begin{vmatrix}x_1 & y_1 & 1\\ x_2 & y_2 & 1\\ x_3 & y_3 & 1\end{vmatrix}^2=A^2$

Q114. Let A be a skew-symmetric matrix of order 3. If $|A|=x$, then $(2023)^x$ is equal to

(a) 2023 (b) $\frac{1}{2023}$ (c) $(2023)^2$ (d) 1

Q116. The value of $\begin{vmatrix}x+y & y+z & z+x\\ z & x & y\\ 1 & 1 & 1\end{vmatrix}$ is

(a) 0 (b) 1 (c) $x+y+z$ (d) $2(x+y+z)$

Q120. If (a, b), (c, d) and (e, f) are the vertices of ΔABC and Δ denotes the area of ΔABC, then $\begin{vmatrix}a & c & e\\ b & d & f\\ 1 & 1 & 1\end{vmatrix}^2$ is equal to

(a) $2\Delta^2$ (b) $4\Delta^2$ (c) 2Δ (d) 4Δ

Q157. If M is a diagonal matrix of order 3 with all the principal diagonal elements equal to p, where $p\neq 0$, then the determinant of $M^{-1}=$

(a) p^3 (b) 0 (c) 1 (d) p^{-3}

Q158. The number of all non-zero Scalar matrices of order 3, with each entry -1, 0 or 1, is

(a) 1 (b) 3 (c) 2 (d) 3^9

Chapter 02 - Relations & Functions

📖 **Select the correct option (s) in the followings.**

Q01. The relation $R=\{(1,2)\}$ on $A=\{1,2,3\}$ is

(a) Reflexive only
(b) Symmetric only
(c) Transitive only
(d) Equivalence i.e., reflexive, symmetric and transitive

Q03. Let $f: A\to B$ be a one-one function s.t. range of f is $\{b\}$. Then the value of n(A) is

(a) 1 (b) 2 (c) 0 (d) 4

Q14. For real numbers x and y, define xRy if and only if $x-y+\sqrt{2}$ is an irrational number. Then the relation R is
(a) only reflexive (b) only symmetric (c) only transitive (d) equivalence

Q36. Let R be the relation in the set N given by $R=\{(a,b): a=b-2,\ b>6\}$.
Which of the following is true?
(a) $(2,4)\in R$ (b) $(3,8)\in R$ (c) $(6,8)\in R$ (d) $(8,7)\in R$

Q37. If $f(x)=|\cos x|$, then $f\left(\frac{3\pi}{4}\right)$ is

(a) 1 (b) -1 (c) $-\frac{1}{\sqrt{2}}$ (d) $\frac{1}{\sqrt{2}}$

Q46. A function $f:\mathbb{R}\to\mathbb{R}$ defined as $f(x)=x^2-4x+5$ is
(a) injective but not surjective (b) surjective but not injective
(c) both injective and surjective (d) neither injective nor surjective

Chapter 03 - Inverse Trigonometric Functions

🕮 **Select the correct option (s) in the followings.**

Q01. The value of $\cos^{-1}(-1)-\sin^{-1}(1)$ is

(a) π (b) $\frac{\pi}{2}$ (c) $\frac{3\pi}{2}$ (d) $-\frac{3\pi}{2}$

Q20. If $\tan^{-1}x=\frac{\pi}{10}$, for some $x\in R$, then the value of $\cot^{-1}x$ is

(a) $\frac{\pi}{5}$ (b) $\frac{2\pi}{5}$ (c) $\frac{3\pi}{5}$ (d) $\frac{4\pi}{5}$

Q23. The domain of the function defined by $f(x)=\sin^{-1}x+\cos x$ is
(a) [–1, 1] (b) [–1, π+1] (c) $(-\infty,\infty)$ (d) ϕ

Q28. The range of $f(x)=\frac{1}{2}\sin^{-1}2x$ is

(a) $\left[-\frac{\pi}{2},\frac{\pi}{2}\right]$ (b) $[-1,1]$ (c) $\left\{\frac{\pi}{2}\right\}$ (d) $\left[-\frac{\pi}{4},\frac{\pi}{4}\right]$

Q35. If $y=\sin x$ is invertible i.e., inverse of $y=\sin x$ exists, then which of the following is correct?

(a) $x\in\left(-\frac{\pi}{2},\frac{\pi}{2}\right),\ y\in[-1,1]$ (b) $x\in\left[\frac{\pi}{2},\frac{3\pi}{2}\right],\ y\in[-1,1]$

(c) $x\in[-1,1],\ y\in\left[-\frac{\pi}{2},\frac{\pi}{2}\right]$ (d) $x\in R,\ y\in\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$

Q37. Let $m=\cos^{-1}\left(-\frac{\sqrt{2}}{2}\right)$ and $n=\sin^{-1}\left(-\frac{\sqrt{2}}{2}\right)$. Then $(m+n)^{\frac{\pi}{4}+n}=$

(a) 0 (b) 1 (c) $\frac{\pi}{2}$ (d) $-\frac{\pi}{2}$

Q38. If $\frac{\pi}{4}<x<\frac{\pi}{2}$, then $\tan^{-1}\left(\frac{1+\tan x}{1-\tan x}\right)=$

(a) $\frac{\pi}{4}+x$ (b) $\frac{\pi}{4}-x$ (c) $\frac{3\pi}{4}-x$ (d) $x-\frac{3\pi}{4}$

Q41. If $\sin^{-1}\left[k\tan\left(2\cos^{-1}\frac{\sqrt{3}}{2}\right)\right]=\frac{\pi}{3}$, then the value of k is

(a) 1 (b) $-\frac{1}{2}$ (c) $\frac{1}{2}$ (d) $\frac{\sqrt{3}}{2}$

Chapter 04 - Continuity & Differentiability

Select the correct option (s) in the followings.

Q01. Value of $\frac{d}{dx}\left(\sin^{-1}\frac{x}{3}+\cos^{-1}\frac{x}{3}\right)$ is equal to

(a) 0 (b) $\frac{1}{3}$ (c) 3 (d) Not possible to find

Q17. The derivative of $|x|$ at $x\neq 0$

(a) is 1 (b) is –1 (c) is 0 (d) is ± 1

Q18. Consider the following statements :

I: $\lim_{x\to 0}\sin\frac{1}{x}$ doesn't exist.

II: $\lim_{x\to 0}x\sin\frac{1}{x}$ exists.

Which of the above statements is/are correct?

(a) I only (b) II only (c) Both I and II (d) Neither I nor II

Q52. If $f(x)=2|x|+3|\sin x|+6$, then the right hand derivative of $f(x)$ at $x=0$ is

(a) 6 (b) 5 (c) 3 (d) 2

Q54. The function $f(x)=x|x|$ is

(a) continuous and differentiable at $x=0$
(b) continuous but not differentiable at $x=0$
(c) differentiable but not continuous at $x=0$
(d) neither differentiable nor continuous at $x=0$

Q55. If $\tan\left(\frac{x+y}{x-y}\right)=k$, then $\frac{dy}{dx}$ is equal to

(a) $-\frac{y}{x}$ (b) $\frac{y}{x}$ (c) $\sec^2\left(\frac{y}{x}\right)$ (d) $-\sec^2\left(\frac{y}{x}\right)$

Q58. Let $f(x)=x-[x]$, where [.] is a g.i.f. Then find $f'\left(\frac{1}{2}\right)=$

(a) not defined (b) 0 (c) 1 (d) –1

Q78. If $y=\sqrt{\cos x+y}$ gives $\frac{dy}{dx}=\frac{\sin x}{k-2y}$, then $k=$

(a) 1 (b) –1 (c) 2 (d) –2

Q79. If $y=A\sin 2x+B\cos 2x$ and $\frac{d^2y}{dx^2}-ky=0$, then the value of k is

(a) 4 (b) $-\frac{1}{4}$ (c) –4 (d) $\frac{1}{4}$

Chapter 05 - Applications Of Derivatives

📖 **Select the correct option (s) in the followings.**

Q01. If $f(x) = \log x$, then $f(x)$ is

(a) always increasing
(b) always decreasing
(c) both increasing and decreasing
(d) neither increasing nor decreasing

Q43. The maximum value of xy, if $x + 2y = 8$, is

(a) 8 (b) 16 (c) 20 (d) 24

Q45. The rate of change of the surface area of the sphere of radius r when the radius is increasing at the rate of 2 cm/s is proportional to

(a) $\frac{1}{r^2}$ (b) $\frac{1}{r}$ (c) r (d) r^2

Q47. The rate of change of the volume of sphere with respect to its surface area, when its radius is 2 units, is

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

Q48. The sides of an equilateral triangle are increasing at the rate of 2 cm/sec. The rate at which the area increases, when side is 10 cm is

(a) 10 cm^2/s (b) $\sqrt{3}$ cm^2/s (c) $10\sqrt{3}$ cm^2/s (d) 10/3 cm^2/s

Q49. If $f(x) = a(x - \cos x)$ is strictly decreasing in $\mathbb{R}$, then 'a' belongs to

(a) $\{0\}$ (b) $(0, \infty)$ (c) $(-\infty, 0)$ (d) $(-\infty, \infty)$

Chapter 06 - Indefinite Integrals

📖 **Select the correct option (s) in the followings.**

Q01. If $\int e^{-2\log x} dx = f(x) + k$, then $f(x)$ is

(a) $\frac{x^3}{3}$ (b) $-\frac{1}{x}$ (c) $-\frac{2}{x}$ (d) $\frac{1}{x}$

Q41. If $\frac{d}{dx}[f(x)] = ax + b$ and $f(0) = 0$, then $f(x)$ is equal to

(a) $a + b$ (b) $\frac{ax^2}{2} + bx$ (c) $\frac{ax^2}{2} + bx + c$ (d) b

Q43. Anti-derivative of $\frac{\tan x - 1}{\tan x + 1}$ with respect to x is

(a) $\sec^2\left(\frac{\pi}{4} - x\right) + c$ (b) $-\sec^2\left(\frac{\pi}{4} - x\right) + c$

(c) $\log\left|\sec\left(\frac{\pi}{4} - x\right)\right| + c$ (d) $-\log\left|\sec\left(\frac{\pi}{4} - x\right)\right| + c$

Q44. $\int \frac{2\cos 2x - 1}{1 + 2\sin x} dx$ is equal to

(a) $x - 2\cos x + C$ (b) $x + 2\cos x + C$ (c) $-x - 2\cos x + C$ (d) $-x + 2\cos x + C$

Q45. $\int \frac{\sec x}{\sec x - \tan x} dx$ equals

(a) $\sec x - \tan x + c$ (b) $\sec x + \tan x + c$ (c) $\tan x - \sec x + c$ (d) $-(\sec x + \tan x) + c$

Chapter 07 - Definite Integrals

📖 **Select the correct option (s) in the followings.**

Q01. If $x = \int_0^y \frac{dt}{\sqrt{1+9t^2}}$ and $\frac{d^2y}{dx^2} = ay$, then the value of a is

(a) 9 (b) 5 (c) –9 (d) –5

Q37. Value of $\int_0^2 \frac{dx}{x^2+4}$ is

(a) $\frac{\pi}{2}$ (b) $\frac{\pi}{4}$ (c) $\frac{\pi}{8}$ (d) None of these

Q39. If $\int_0^{2\pi} \cos^2 x\, dx = k \int_0^{\pi/2} \cos^2 x\, dx$, then the value of k is

(a) 4 (b) 2 (c) 1 (d) 0

Q40. If $\int_0^a 3x^2 dx = 8$, then the value of 'a' is

(a) 2 (b) 4 (c) 8 (d) 10

Q41. $\int_{-1}^{1} \frac{|x-2|}{x-2} dx$, $x \neq 2$ is equal to

(a) 1 (b) –1 (c) 2 (d) –2

Chapter 08 - Application Of Integrals

📖 **Select the correct option (s) in the followings.**

Q01. The area of the ellipse whose major axis is on the x-axis, is

(a) $\pi a b$ (b) $\pi(a+b)$ (c) $\frac{\pi}{4}(a^2+b^2)$ (d) $\frac{\pi}{4}(ab)$

Q02. Area of the triangle (in square units) bounded by the sides $x = 0$, $y = 0$ and $x + y = 2$ is

(a) 1 (b) 2 (c) 4 (d) 8

Q26. The area cut off from the parabola $y^2 = px$ by the line $y = px$ is

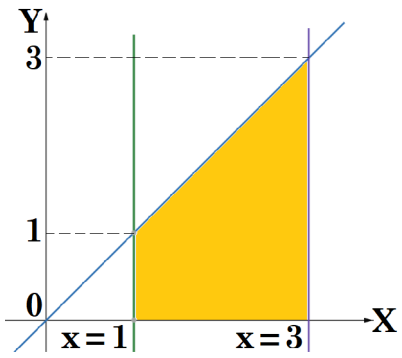
(a) $\frac{p}{6}$ (b) $\frac{1}{6p}$ (c) $\frac{p^2}{2}$ (d) $\frac{p^3}{3}$

Q27. The area of the region bounded by the curves $y = x^2$ and $y = |x|$ is

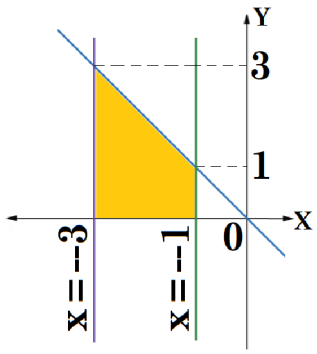
(a) $\frac{1}{6}$ (b) $\frac{1}{3}$ (c) $\frac{5}{6}$ (d) $\frac{5}{3}$

Q33. Which of the following graph gives the area represented by $\int_1^3 x\,dx$?

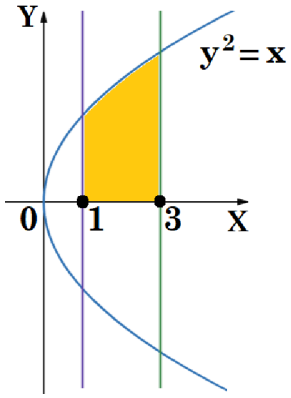
(a)



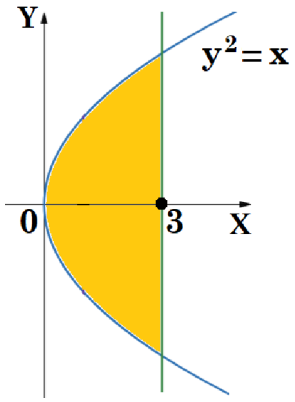
(b)



(c)



(d)



Chapter 09 - Differential Equations

📖 **Select the correct option (s) in the followings.**

Q01. The general solution of the differential equation $\ln\left(\frac{dy}{dx}\right) + x = 0$ is

(a) $y = e^{-x} + c$ (b) $y = -e^{-x} + c$ (c) $y = e^{x} + c$ (d) $y = -e^{x} + c$

Q31. The solution of the differential equation $\cos x \cos y dx + \sin x \sin y dy = 0$ is

(a) $\tan x = c$ (b) $\sec x - \sec y = c$ (c) $\sec y . \sin x = c$ (d) $\text{cosec}\, y . \cos x = c$

Q32. The slope a curve at any point, is the reciprocal of twice the ordinate and it passes through (4, 3). The equation of the curve is

(a) $y^2 - x + 5 = 0$ (b) $x^2 - y + 5 = 0$ (c) $y^2 - x - 5 = 0$ (d) $x^2 - y - 5 = 0$

Q34. The integrating factor of the differential equation $(1-y^2)\frac{dx}{dy}+yx=ay,\ (-1<y<1)$ is

(a) $\frac{1}{y^2-1}$ (b) $\frac{1}{\sqrt{y^2-1}}$ (c) $\frac{1}{1-y^2}$ (d) $\frac{1}{\sqrt{1-y^2}}$

Q35. The number of solutions of the differential equation $\frac{dy}{dx}=\frac{y+1}{x-1}$, when $y(1)=2$, is

(a) zero (b) one (c) two (d) infinite

Chapter 10 - Linear Programming

Select the correct option (s) in the followings.

Q01. The corner points of the feasible region determined by the system of linear constraints are (0, 10), (5, 5), (15, 15), (0, 20). Let $Z=px+qy$, where $p,q>0$. Condition on p and q so that the maximum of Z occurs at the points (15, 15) and (0, 20) both, is

(a) $p=q$ (b) $p=2q$ (c) $q=2p$ (d) $q=3p$

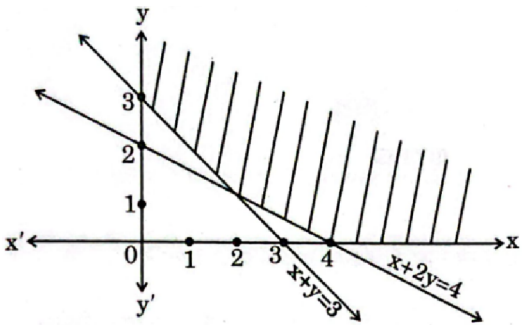
Q45. The number of feasible solutions of the linear programming problem given as

Maximize $z=15x+30y$

Subject to constraints $3x+y\le 12,\ x+2y\le 10,\ x\ge 0,\ y\ge 0$ is

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

Q46. The feasible region of a linear programming problem is shown in the figure below



Which of the following are the possible constraints?

(a) $x+2y\ge 4,\ x+y\le 3,\ x\ge 0,\ y\ge 0$

(b) $x+2y\le 4,\ x+y\le 3,\ x\ge 0,\ y\ge 0$

(c) $x+2y\ge 4,\ x+y\ge 3,\ x\ge 0,\ y\ge 0$

(d) $x+2y\ge 4,\ x+y\ge 3,\ x\le 0,\ y\le 0$

Q48. Which of the following points satisfies both the inequalities $2x+y\le 10$ and $x+2y\ge 8$?

(a) (–2, 4) (b) (3, 2) (c) (–5, 6) (d) (4, 2)

Chapter 11 - Vector Algebra

Select the correct option (s) in the followings.

Q01. The magnitude of the vector $6\hat{i}+2\hat{j}+3\hat{k}$ is

(a) 5 (b) 7 (c) 12 (d) 1

Q64. $\vec{a}$ and $\vec{b}$ are two non-zero vectors such that the projection of $\vec{a}$ on $\vec{b}$ is 0. The angle between $\vec{a}$ and $\vec{b}$ is

(a) $\frac{\pi}{2}$ (b) π (c) $\frac{\pi}{4}$ (d) 0

Q65. In ΔABC, $\overrightarrow{AB} = \hat{i} + \hat{j} + 2\hat{k}$ and $\overrightarrow{AC} = 3\hat{i} - \hat{j} + 4\hat{k}$. If D is mid-point of BC, then vector $\overrightarrow{AD} =$

(a) $4\hat{i} + 6\hat{k}$ (b) $2\hat{i} - 2\hat{j} + 2\hat{k}$ (c) $\hat{i} - \hat{j} + \hat{k}$ (d) $2\hat{i} + 3\hat{k}$

Q66. All the vectors of magnitude $3\sqrt{3}$ which are collinear to vector $\hat{i} + \hat{j} + \hat{k}$, are given by

(a) $\frac{\hat{i} + \hat{j} + \hat{k}}{\sqrt{3}}$ (b) $-\left(\frac{\hat{i} + \hat{j} + \hat{k}}{\sqrt{3}}\right)$ (c) $\pm\left(\frac{\hat{i} + \hat{j} + \hat{k}}{\sqrt{3}}\right)$ (d) $\pm\left(\frac{\hat{i} + \hat{j} + \hat{k}}{3}\right)$

Q67. Let $\vec{a} = \hat{i} + 2\hat{j} - 3\hat{k}$ and $\vec{b} = 3\hat{i} - \hat{j} + 2\hat{k}$ be two vectors. Then angle between $\vec{a} + \vec{b}$ and $\vec{a} - \vec{b}$ is

(a) 90° (b) 180° (c) 45° (d) 0°

Chapter 12 - Three Dimensional Geometry

📖 **Select the correct option (s) in the followings.**

Q01. Distance of the point (α, β, γ) from y-axis is

(a) β (b) $|\beta|$ (c) $|\beta| + |\gamma|$ (d) $\sqrt{\alpha^2 + \gamma^2}$

Q30. The value of λ for which the angle between the lines

$\vec{r} = \hat{i} + \hat{j} + \hat{k} + p(2\hat{i} + \hat{j} + 2\hat{k})$ and $\vec{r} = (1+q)\hat{i} + (1+q\lambda)\hat{j} + (1+q)\hat{k}$ is $\frac{\pi}{2}$, is

(a) -4 (b) 4 (c) 2 (d) -2

Q32. If the direction cosines of a line are $\left(\frac{1}{a}, \frac{1}{a}, \frac{1}{a}\right)$, then

(a) $0 < a < 1$ (b) $a > 2$ (c) $a > 0$ (d) $a = \pm\sqrt{3}$

Q33. The point $(x, y, 0)$ on the xy-plane divides the line segment joining the points $(1, 2, 3)$ and $(3, 2, 1)$ in the ratio

(a) 1 : 2 internally (b) 2 : 1 internally (c) 3 : 1 internally (d) 3 : 1 externally

Q34. The angle between the lines $2x = 3y = -z$ and $6x = -y = -4z$ is

(a) 0° (b) 30° (c) 45° (d) 90°

Chapter 13 - Probability

📖 **Select the correct option (s) in the followings.**

Q01. If A and B are independent events and $P(A \cup B) = \frac{3}{8}$, then $P(A').P(B')$ is

(a) $\frac{5}{8}$ (b) $\frac{3}{8}$ (c) $\frac{1}{8}$ (d) $\frac{7}{8}$

Q35. One mapping (i.e., function) is selected at random from all the mappings of the set $A = \{1, 2, 3, 4, 5, 6\}$ into itself. Then, the probability that the mapping selected is a one-one mapping, is

(a) $\frac{5}{324}$ (b) $\frac{4}{325}$ (c) $\frac{2}{354}$ (d) $\frac{3}{524}$

Q45. If A and B are two events such that $P(A \mid B) = 2 \times P(B \mid A)$ and $P(A) + P(B) = \frac{2}{3}$, then $P(B)$ is equal to

(a) $\frac{2}{9}$ (b) $\frac{7}{9}$ (c) $\frac{4}{9}$ (d) $\frac{5}{9}$

Q53. Five fair coins are tossed simultaneously. The probability of the events that at least one head comes up is

(a) $\frac{27}{32}$ (b) $\frac{5}{32}$ (c) $\frac{31}{32}$ (d) $\frac{1}{32}$

Q63. A matrix B of order 2 is randomly selected from all the matrices of order 2×2 with entries 0 or 1. What is the probability of matrix B to be a diagonal matrix?

(a) $\frac{1}{8}$ (b) $\frac{3}{4}$ (c) $\frac{1}{2}$ (d) $\frac{1}{4}$

#WE-ARE-ON-MISSION

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CLASS XII

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- SUBJECTIVE TYPE QUESTIONS
- COMPETENCY FOCUSED QUESTIONS
- MULTIPLE CHOICE QUESTIONS
- ASSERTION - REASON QUESTIONS
- CASE STUDY & PASSAGE BASED QUESTIONS

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SYLLABUS

MATHEMATICS (041)
Class XII ▪ (2025-26)

One Paper (Theory)
Time: 180 Minutes Max Marks: 80

No.	UNITS	MARKS
I	Relations & Functions	08
II	Algebra	10
III	Calculus	35
IV	Vectors & 3 D Geometry	14
V	Linear Programming	05
VI	Probability	08
	Total	**80**

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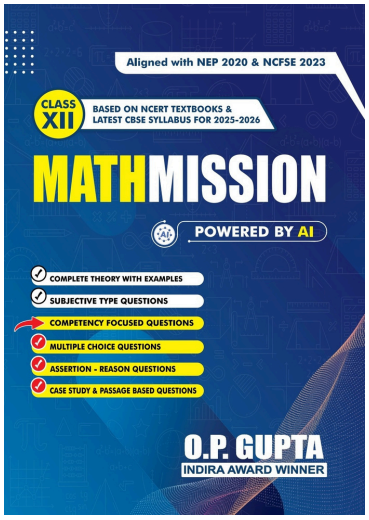

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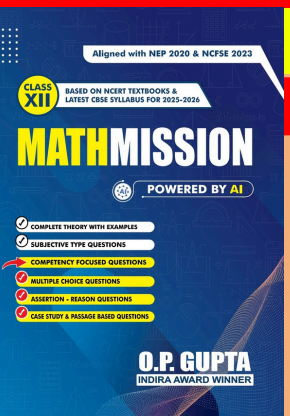

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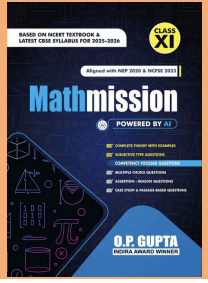

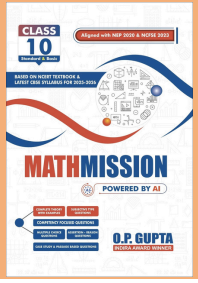

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ABOUT THE AUTHOR

O.P. GUPTA having taught math passionately over a decade, has devoted himself to this subject. Every book, study material or practice sheets, tests he has written, tries to teach serious math in a way that allows the students to learn math without being afraid. Undoubtedly his mathematics books are best sellers on Amazon and Flipkart. His resources have helped students and teachers for a long time across the country. He has contributed in CBSE Question Bank (issued in April 2021). Mr Gupta has been invited by many educational institutions for hosting sessions for the students of senior classes. Being qualified as an electronics & communications engineer, he has pursued his graduation later on with mathematics from University of Delhi due to his passion towards mathematics. He has been honored with the prestigious INDIRA AWARD by the Govt. of Delhi for excellence in education.

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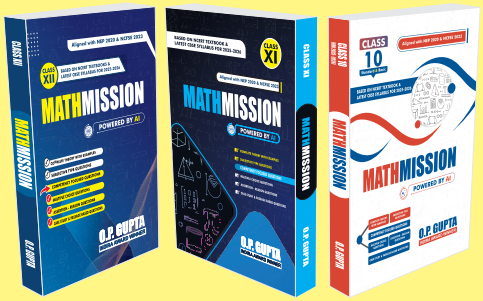

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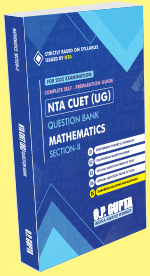

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