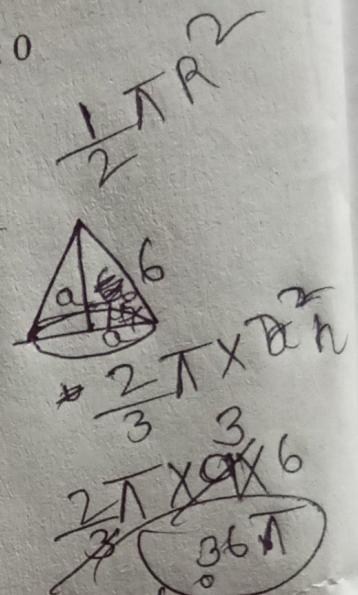


1. The function $x^x; x > 0$ is strictly increasing at
 (A) $\forall x \in \mathbb{R}$ (B) $x < \frac{1}{e}$ \checkmark (C) $x > \frac{1}{e}$ (D) $x < 0$

2. The maximum volume of the right circular cone with slant height 6 units is
 (A) $4\sqrt{3}\pi$ cubic units
 (C) $3\sqrt{3}\pi$ cubic units



3. If $f(x) = x e^{x(1-x)}$ then $f(x)$ is
 (A) increasing in \mathbb{R}
 (C) decreasing in $[-\frac{1}{2}, 1]$

$$\text{Diagram: } \frac{\pi r^2 h}{3} \quad \text{Angle: } 360^\circ \text{ at } 60^\circ$$

4. $\int \frac{\sin x}{3 + 4 \cos^2 x} dx =$
 (A) $-\frac{1}{2\sqrt{3}} \tan^{-1} \left(\frac{2\cos x}{\sqrt{3}} \right) + C$

$$\checkmark (B) \frac{1}{\sqrt{3}} \tan^{-1} \left(\frac{\cos x}{3} \right) + C$$

- (C) $\frac{1}{2\sqrt{3}} \tan^{-1} \left(\frac{\cos x}{3} \right) + C$ (D) $-\frac{1}{\sqrt{3}} \tan^{-1} \left(\frac{2\cos x}{3} \right) + C$

5. $\int_{-\pi}^{\pi} (1 - x^2) \sin x \cdot \cos^2 x dx =$
 (A) $\pi - \frac{\pi^2}{3}$
 (C) $\pi - \frac{\pi^3}{2}$ (B) $2\pi - \pi^3$
 (D) 0

$$\frac{216\pi}{\sqrt{2}}$$

6. $\int \frac{1}{x[6(\log x)^2 + 7\log x + 2]} dx =$

(A) $\frac{1}{2} \log \left| \frac{2\log x + 1}{3\log x + 2} \right| + C$

(C) $\log \left| \frac{3\log x + 2}{2\log x + 1} \right| + C$

(B) $\log \left| \frac{2\log x + 1}{3\log x + 2} \right| + C$

\checkmark (D) $\frac{1}{2} \log \left| \frac{3\log x + 2}{2\log x + 1} \right| + C$

7. $\int \frac{\sin \frac{5x}{2}}{\sin \frac{x}{2}} dx =$

(A) $2x + \sin x + 2 \sin 2x + C$

(C) $x + 2 \sin x + \sin 2x + C$

(B) $x + 2 \sin x + 2 \sin 2x + C$

\checkmark (D) $2x + \sin x + \sin 2x + C$

~~-15 + 5~~
~~+ 10~~

8. $\int_1^5 (|x-3| + |1-x|) dx =$

\checkmark (A) 12

(B) $\frac{5}{6}$

$$\begin{aligned} & \frac{x^2 - 3x + x - x^2}{2} \\ & \cancel{x^2} - 3x + x - \cancel{x^2} \\ & \cancel{-} -3 + 1 - \cancel{x} \end{aligned} \quad (-2)$$

(C) 21

(D) 10

9. $\lim_{n \rightarrow \infty} \left(\frac{n}{n^2+1^2} + \frac{n}{n^2+2^2} + \frac{n}{n^2+3^2} + \dots + \frac{1}{5n} \right) =$

(A) $\frac{\pi}{4}$

(B) $\tan^{-1} 3$

(C) $\tan^{-1} 2$

\checkmark (D) $\frac{\pi}{2}$

10. The area of the region bounded by the line $y = 3x$ and the curve $y = x^2$ in sq. units is

~~(A)~~ 10

~~(B)~~ $\frac{9}{2}$

(C) 9

~~(D)~~ 5

11. The area of the region bounded by the line $y = x$ and the curve $y = x^3$ is

(A) 0.2 sq. units

(C) 0.4 sq. units

(B) 0.3 sq. units

\checkmark (D) 0.5 sq. units

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12. $y(0) =$

(A)

(B)

(C)

(D)

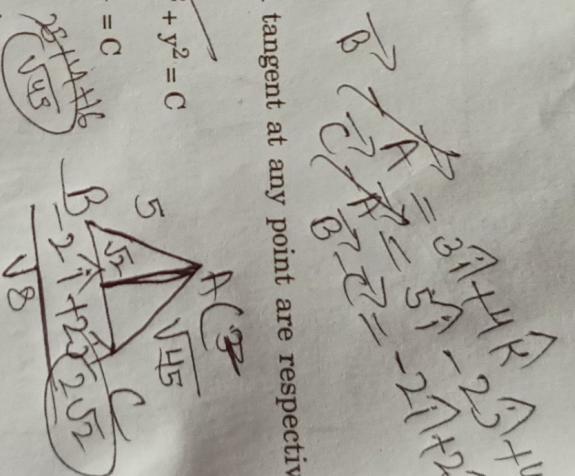
12. The solution of $e^{\frac{dy}{dx}} = x+1, y(0) = 3$ is

- (A) $y - 2 = x \log x - x$
 (B) $y - x - 3 = x \log x$
 (C) $y - x - 3 = (x+1) \log(x+1)$
 (D) $\cancel{y + x - 3 = (x+1) \log(x+1)}$

13. The family of curves whose x and y intercepts of a tangent at any point are respectively double the x and y coordinates of that point is

- (A) $xy = C$
 (C) $x^2 - y^2 = C$

- (B) $\cancel{x^2 + y^2 = C}$
 (D) $\frac{y}{x} = C$



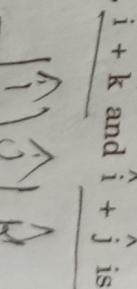
14. The vectors $\vec{AB} = 3\hat{i} + 4\hat{j}$ and $\vec{AC} = 5\hat{i} - 2\hat{j} + 4\hat{k}$ are the sides of a $\triangle ABC$. The length of the median through A is

- (A) $\sqrt{18}$
 (B) $\sqrt{72}$
 (C) $\sqrt{33}$
 (D) $\sqrt{288}$

$\sqrt{25-18}$

15. The volume of the parallelopiped whose co-terminous edges are $\hat{j} + \hat{k}$, $\hat{i} + \hat{k}$ and $\hat{i} + \hat{j}$ is

- (A) 6 cu. units
 (B) 2 cu. units
 (C) 4 cu. units
 (D) 3 cu. units



16. Let \vec{a} and \vec{b} be two unit vectors and θ is the angle between them. Then $\vec{a} + \vec{b}$ is a unit vector if

- (A) $\theta = \frac{\pi}{4}$
 (B) $\theta = \frac{\pi}{3}$
 (C) $\theta = \frac{2\pi}{3}$
 (D) $\theta = \frac{\pi}{2}$

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(6)

$$\theta = \frac{\pi}{2}$$

$$|\vec{a} + \vec{b}| = \sqrt{a^2 + b^2}$$

(6)

$$|\vec{a} + \vec{b}| = \sqrt{a^2 + b^2}$$

(6)

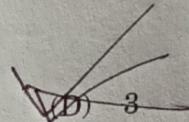
17. \vec{a}

- If $\vec{a}, \vec{b}, \vec{c}$ are three non-coplanar vectors and p, q, r are vectors defined by

$$\vec{p} = \frac{\vec{b} \times \vec{c}}{[\vec{a} \vec{b} \vec{c}]}, \vec{q} = \frac{\vec{c} \times \vec{a}}{[\vec{a} \vec{b} \vec{c}]}, \vec{r} = \frac{\vec{a} \times \vec{b}}{[\vec{a} \vec{b} \vec{c}]}, \text{ then}$$

$$(\vec{a} + \vec{b}) \cdot \vec{p} + (\vec{b} + \vec{c}) \cdot \vec{q} + (\vec{c} + \vec{a}) \cdot \vec{r} \text{ is}$$

- (A) 0 (B) 1 (C) 2



18. If lines $\frac{x-1}{-3} = \frac{y-2}{2k} = \frac{z-3}{2}$ and $\frac{x-1}{3k} = \frac{y-5}{1} = \frac{z-6}{-5}$ are mutually perpendicular,

then k is equal to

- (A) $-\frac{10}{7}$ (B) $-\frac{7}{10}$ (C) -10 (D) -7

19. The distance between the two planes $2x + 3y + 4z = 4$ and $4x + 6y + 8z = 12$ is

- (A) 2 units (B) 8 units (C) $\frac{2}{\sqrt{29}}$ units (D) 4 units

20. The sine of the angle between the straight line $\frac{x-2}{3} = \frac{y-3}{4} = \frac{4-z}{-5}$ and the plane

$$2x - 2y + z = 5 \text{ is}$$

- (A) $\frac{1}{5\sqrt{2}}$ (B) $\frac{2}{5\sqrt{2}}$ (C) $\frac{3}{50}$ (D) $\frac{3}{\sqrt{50}}$

21. The equation $xy = 0$ in three-dimensional space represents

- (A) a pair of straight lines
 (B) a plane
 (C) a pair of planes at right angles
 (D) a pair of parallel planes

$$\frac{2+3+4}{\sqrt{4+9+16}}$$

22. The plane containing the point $(3, 2, 0)$ and the line $\frac{x-3}{1} = \frac{y-6}{5} = \frac{z-4}{4}$ is

- (A) $x - y + z = 1$
 (C) $x + 2y - z = 1$

- (B) $x + y + z = 5$
 (D) $2x - y + z = 5$

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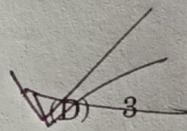
17. \vec{a}

- If $\vec{a}, \vec{b}, \vec{c}$ are three non-coplanar vectors and p, q, r are vectors defined by

$$\vec{p} = \frac{\vec{b} \times \vec{c}}{[\vec{a} \vec{b} \vec{c}]}, \vec{q} = \frac{\vec{c} \times \vec{a}}{[\vec{a} \vec{b} \vec{c}]}, \vec{r} = \frac{\vec{a} \times \vec{b}}{[\vec{a} \vec{b} \vec{c}]}, \text{ then}$$

$$(\vec{a} + \vec{b}) \cdot \vec{p} + (\vec{b} + \vec{c}) \cdot \vec{q} + (\vec{c} + \vec{a}) \cdot \vec{r} \text{ is}$$

- (A) 0 (B) 1 (C) 2



18. If lines $\frac{x-1}{-3} = \frac{y-2}{2k} = \frac{z-3}{2}$ and $\frac{x-1}{3k} = \frac{y-5}{1} = \frac{z-6}{-5}$ are mutually perpendicular,

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$$2x - 2y + z = 5 \text{ is}$$

- (A) $\frac{1}{5\sqrt{2}}$ (B) $\frac{2}{5\sqrt{2}}$ (C) $\frac{3}{50}$ (D) $\frac{3}{\sqrt{50}}$

21. The equation $xy = 0$ in three-dimensional space represents

- (A) a pair of straight lines
 (B) a plane
 (C) a pair of planes at right angles
 (D) a pair of parallel planes

$$\frac{2+3+4}{\sqrt{4+9+16}}$$

22. The plane containing the point $(3, 2, 0)$ and the line $\frac{x-3}{1} = \frac{y-6}{5} = \frac{z-4}{4}$ is

- (A) $x - y + z = 1$
 (C) $x + 2y - z = 1$

- (B) $x + y + z = 5$
 (D) $2x - y + z = 5$

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23. Corner points of the feasible region for an LPP are $(0, 2)$, $(3, 0)$, $(6, 0)$, $(6, 8)$ and $(0, 5)$. Let $z = 4x + 6y$ be the objective function. The minimum value of z occurs at

- (A) Only $(0, 2)$
- (B) Only $(3, 0)$
- (C) The mid-point of the line segment joining the points $(0, 2)$ and $(3, 0)$
- (D) Any point on the line segment joining the points $(0, 2)$ and $(3, 0)$

24. A die is thrown 10 times. The probability that an odd number will come up at least once is

- (A) $\frac{11}{1024}$
- (B) $\frac{1013}{1024}$
- (C) $\frac{1023}{1024}$
- (D) $\frac{1}{1024}$

25. A random variable X has the following probability distribution :

X	0	1	2
P(X)	$\frac{25}{36}$	k	$\frac{1}{36}$

If the mean of the random variable X is $\frac{1}{3}$, then the variance is

- (A) $\frac{1}{18}$
- (B) $\frac{5}{18}$
- (C) $\frac{7}{18}$
- (D) $\frac{11}{18}$

26. If a random variable X follows the binomial distribution with parameters $n = 5$, p and $P(X = 2) = 9P(X = 3)$, then p is equal to

- (A) 10
- (B) $\frac{1}{10}$
- (C) 5
- (D) $\frac{1}{5}$

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23. $(0, 2), (3, 0)$,
ಈಗಿಂದುಗಳ ದೊರೆಯತ್ತದ

- (A) $(0, 2)$ ಹ
- (B) $(3, 0)$ ಹ
- (C) $(0, 2)$ ಹ
- (D) $(0, 2)$ ಹ

24. ಒಂದು ದಾಳವನ

- (A) $\frac{11}{1024}$
- (C) $\frac{1023}{1024}$

25. X ಎಂಬ ಯಾದೃಚಿಕೆ

X
P(X)

ಯಾದೃಚಿಕ ಜಂ

- (A) $\frac{1}{18}$

26. ಯಾದೃಚಿಕ ಜಂ
ಅನುಸರಿಸಿದರೆ

- (A) 10



27. Two finite sets have m and n elements respectively. The total number of subsets of the first set is 56 more than the total number of subsets of the second set. The values of m and n respectively are

(A) 7, 6

(B) 5, 1

(C) 6, 3

(D) 8, 7

28. If $[x]^2 - 5[x] + 6 = 0$, where $[x]$ denotes the greatest integer function, then

(A) $x \in [3, 4]$

(B) $x \in [2, 4]$

(C) $x \in [2, 3]$

$$x^2 - 5x + 6 = 0 \rightarrow x(x-5) + 6(1-x) = 0 \rightarrow x(x-5) - 6(x-1) = 0 \rightarrow x(x-5) - 6(x-1) = 0$$

(D) $x \in (2, 3]$

29. If in two circles, arcs of the same length subtend angles 30° and 78° at the centre, then the ratio of their radii is

(A) $\frac{5}{13}$

(B) $\frac{13}{5}$

(C) $\frac{13}{4}$

(D) $\frac{4}{13}$

30. If $\triangle ABC$ is right angled at C , then the value of $\tan A + \tan B$ is

(A) $a + b$

(B) $\frac{a^2}{bc}$

(C) $\frac{c^2}{ab}$

(D) $\frac{b^2}{ac}$

31. The real value of ' α ' for which $\frac{1 - i \sin \alpha}{1 + 2i \sin \alpha}$ is purely real is

(A) $(n+1)\frac{\pi}{2}$, $n \in \mathbb{N}$

(B) $(2n+1)\frac{\pi}{2}$, $n \in \mathbb{N}$

(C) $n\pi$, $n \in \mathbb{N}$

$$30 = \frac{0.5\pi}{2}$$

$$78 = \frac{0.75\pi}{2}$$

(D) $(2n-1)\frac{\pi}{2}$, $n \in \mathbb{N}$

$$\tan A = \frac{b}{c} + \frac{c}{b}$$

$$\frac{b^2 + c^2}{bc}$$

32. The length of a rectangle is five times the breadth. If the minimum perimeter of the rectangle is 180 cm, then

(A) Breadth ≤ 15 cm

(B) Breadth ≥ 15 cm

(C) Length ≤ 15 cm

(D) Length = 15 cm

$$l = 5b$$

$$2(l+b) = 180$$

$$2(5b+b) = 180$$

$$12b = 180$$

$$b = 15$$

33. The value of ${}^{49}C_3 + {}^{48}C_3 + {}^{47}C_3 + {}^{46}C_3 + {}^{45}C_3 + {}^{45}C_4$ is

(A) ${}^{50}C_4$

(B) ${}^{50}C_3$

(C) ${}^{50}C_2$

(D) ${}^{50}C_1$

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27. ಎರಡು ಪರಿಮಿತ ಸಂಖ್ಯೆಯ ವರದಿ

(A) 7, 6

28. $[x]$ ಎಂಬುದನ್ನು

(A) $x \in [3, 4]$

29. ಎರಡು ವೃತ್ತಗಳ ಅವಳಿಗಳ ತ್ರಿಜ್ಯಗಳ ಅನುಪಾತ

(A) $\frac{5}{13}$

30. $\triangle ABC$ ಯಿಂದ

(A) $a + b$

31. $\frac{1 - i \sin \alpha}{1 + 2i \sin \alpha}$ ಎಂಬುದನ್ನು

(A) $(n+1)\pi$

(C) $n\pi$, $n \in \mathbb{N}$

32. ಒಂದು ಆಯಂತ್ರಿಕ ವರದಿ

(A) ಅಗಲ

(C) ಉಷ್ಣ

33. ${}^{49}C_3 + {}^{48}C_3$ ಯಿಂದ

(A) ${}^{50}C_4$

(C) ${}^{50}C_2$



34. In the expansion of $(1+x)^n$

$\frac{C_1}{C_0} + 2\frac{C_2}{C_1} + 3\frac{C_3}{C_2} + \dots + n\frac{C_n}{C_{n-1}}$ is equal to

- (A) $\frac{n(n+1)}{2}$ (B) $\frac{n}{2}$ (C) $\frac{n+1}{2}$ (D) $3n(n+1)$

35. If S_n stands for sum to n -terms of a G.P. with 'a' as the first term and 'r' as the common ratio then $S_n : S_{2n}$ is

- (A) $r^n + 1$ (B) $\frac{1}{r^n + 1}$ (C) $r^n - 1$ (D) $\frac{1}{r^n - 1}$

36. If A.M. and G.M. of roots of a quadratic equation are 5 and 4 respectively, then the quadratic equation is

- (A) $x^2 - 10x - 16 = 0$
 ✓ (B) $x^2 + 10x + 16 = 0$
 (C) $x^2 + 10x - 16 = 0$
 (D) $x^2 - 10x + 16 = 0$

37. The angle between the line $x + y = 3$ and the line joining the points $(1, 1)$ and $(-3, 4)$ is

- ✓ (A) $\tan^{-1}(7)$ (B) $\tan^{-1}\left(-\frac{1}{7}\right)$
 (C) $\tan^{-1}\left(\frac{1}{7}\right)$ (D) $\tan^{-1}\left(\frac{2}{7}\right)$

38. The equation of parabola whose focus is $(6, 0)$ and directrix is $x = -6$ is

- (A) $y^2 = 24x$ ✓ (B) $y^2 = -24x$
 (C) $x^2 = 24y$ (D) $x^2 = -24y$

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39. $\lim_{x \rightarrow \frac{\pi}{4}} \frac{\sqrt{2} \cos x - 1}{\cot x - 1}$ is equal to

- (A) 2 \checkmark (B) $\sqrt{2}$ (C) $\frac{1}{2}$ (D) $\frac{1}{\sqrt{2}}$

40. The negation of the statement

"For every real number x , $x^2 + 5$ is positive"

is

- (A) For every real number x , $x^2 + 5$ is not positive.
 (B) For every real number x , $x^2 + 5$ is negative.
 \checkmark (C) There exists at least one real number x such that $x^2 + 5$ is not positive.
 (D) There exists at least one real number x such that $x^2 + 5$ is positive.

41. Let a, b, c, d and e be the observations with mean m and standard deviation S . The

standard deviation of the observations $a+k, b+k, c+k, d+k$ and $e+k$ is

- (A) kS \checkmark (B) $S+k$ (C) $\frac{S}{k}$ (D) S

42. Let $f: R \rightarrow R$ be given by $f(x) = \tan x$. Then $f^{-1}(1)$ is

- (A) $\frac{\pi}{4}$
 \checkmark (B) $\{n\pi + \frac{\pi}{4} : n \in \mathbb{Z}\}$
 (C) $\frac{\pi}{3}$
 (D) $\{n\pi + \frac{\pi}{3} : n \in \mathbb{Z}\}$

43. Let $f: R \rightarrow R$ be defined by $f(x) = x^2 + 1$. Then the pre images of 17 and -3 respectively

- are
 (A) $\phi, \{4, -4\}$
 (C) $\{4, -4\}, \phi$
 \checkmark (B) $\{3, -3\}, \phi$
 (D) $\{4, -4\}, \{2, -2\}$

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$$\frac{\sqrt{2}-\sqrt{5}}{\sqrt{2}+\sqrt{5}}$$

39. $\lim_{x \rightarrow \frac{\pi}{4}} \frac{\sqrt{2} \cos x - 1}{\cot x - 1}$

- (A) 2

40. "വ്യക്തിയോട്

ബന്ധം

- (A) വ്യക്തി

(B) വ്യക്തി

- (C) $x^2 + 5$

(D) $x^2 + 5$

44. Let $(gof)(x) = \sin x$ and $(fog)(x) = (\sin \sqrt{x})^2$. Then

- (A) $f(x) = \sin^2 x, g(x) = x$
 (B) $f(x) = \sin \sqrt{x}, g(x) = \sqrt{x}$
 (C) $f(x) = \sin^2 x, g(x) = \sqrt{x}$
 (D) $f(x) = \sin \sqrt{x}, g(x) = x^2$

45. Let $A = \{2, 3, 4, 5, \dots, 16, 17, 18\}$. Let R be the relation on the set A of ordered pairs of positive integers defined by $(a, b) R (c, d)$ if and only if $ad = bc$ for all $(a, b), (c, d)$ in $A \times A$. Then the number of ordered pairs of the equivalence class of $(3, 2)$ is

- (A) 4 (B) 5 (C) 6 (D) 7

46. If $\cos^{-1} x + \cos^{-1} y + \cos^{-1} z = 3\pi$, then $x(y+z) + y(z+x) + z(x+y)$ equals to

- (A) 0 (B) 1 (C) 6 (D) 12

47. If $2 \sin^{-1} x - 3 \cos^{-1} x = 4$, $x \in [-1, 1]$ then $2 \sin^{-1} x + 3 \cos^{-1} x$ is equal to

- (A) $\frac{4 - 6\pi}{5}$ (B) $\frac{6\pi - 4}{5}$ (C) $\frac{3\pi}{2}$ (D) 0

48. If A is a square matrix such that $A^2 = A$, then $(I + A)^3$ is equal to

- (A) $7A - I$ (B) $7A$ (C) $7A + I$ (D) $I - 7A$

49. If $A = \begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$, then A^{10} is equal to

- (A) $2^8 A$ (B) $2^9 A$ (C) $2^{10} A$ (D) $2^{11} A$

50. If $f(x) = \begin{vmatrix} x-3 & 2x^2-18 & 2x^3-81 \\ x-5 & 2x^2-50 & 4x^3-500 \\ 1 & 2 & 3 \end{vmatrix}$, then $f(1) \cdot f(3) + f(3) \cdot f(5) + f(5) \cdot f(1)$ is

- (A) -1 (B) 0 (C) 1 (D) 2

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51. If $P = \begin{bmatrix} 1 & \alpha & 3 \\ 1 & 3 & 3 \\ 2 & 4 & 4 \end{bmatrix}$ is the adjoint of a 3×3 matrix A and $|A| = 4$, then α is equal to
 (A) 4
 (B) 5
 (C) 11
 (D) 0

52. If $A = \begin{vmatrix} x & 1 \\ 1 & x \end{vmatrix}$ and $B = \begin{vmatrix} x & 1 & 1 \\ 1 & x & 1 \\ 1 & 1 & x \end{vmatrix}$, then $\frac{dB}{dx}$ is
 (A) $3A$
 (B) $-3B$
 (C) $3B + 1$
 (D) $1 - 3A$

53. Let $f(x) = \begin{vmatrix} \cos x & x & 1 \\ 2 \sin x & x & 2x \\ \sin x & x & x \end{vmatrix}$. Then $\lim_{x \rightarrow 0} \frac{f(x)}{x^2} =$
 (A) -1
 (B) 0
 (C) 3
 (D) 2

54. Which one of the following observations is correct for the features of logarithm function to any base $b > 1$?
 (A) The domain of the logarithm function is R, the set of real numbers.
 (B) The range of the logarithm function is R^+ , the set of all positive real numbers.
 (C) The point $(1, 0)$ is always on the graph of the logarithm function.
 (D) The graph of the logarithm function is decreasing as we move from left to right.

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55. The function $f(x) = |\cos x|$ is

- (A) everywhere continuous and differentiable
- (B) everywhere continuous but not differentiable at odd multiples of $\frac{\pi}{2}$
- (C) neither continuous nor differentiable at $(2n+1)\frac{\pi}{2}$, $n \in \mathbb{Z}$
- (D) not differentiable everywhere

56. If $y = 2x^{3x}$, then $\frac{dy}{dx}$ at $x = 1$ is

- (A) 2
- (B) 6
- (C) 3
- (D) 1

57. Let the function satisfy the equation $f(x+y) = f(x)f(y)$ for all $x, y \in \mathbb{R}$, where $f(0) \neq 0$. If $f(5) = 3$ and $f'(0) = 2$, then $f'(5)$ is

- (A) 6
- (B) 0
- (C) 5
- (D) -6

58. The value of C in $(0, 2)$ satisfying the mean value theorem for the function $f(x) = x(x-1)^2$, $x \in [0, 2]$ is equal to

- (A) $\frac{3}{4}$
- (B) $\frac{4}{3}$
- (C) $\frac{1}{3}$
- (D) $\frac{2}{3}$

59. $\frac{d}{dx} \left[\cos^2 \left(\cot^{-1} \sqrt{\frac{2+x}{2-x}} \right) \right]$ is

- (A) $-\frac{3}{4}$
- (B) $-\frac{1}{2}$
- (C) $\frac{1}{2}$
- (D) $\frac{1}{4}$

60. For the function $f(x) = x^3 - 6x^2 + 12x - 3$; $x = 2$ is

- (A) a point of minimum
- (B) a point of inflection
- (C) not a critical point
- (D) a point of maximum

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55. $f(x) = |\cos x|$

(A) ಎಲ್ಲಾ ತ

(B) ಎಲ್ಲಾ ತ

(C) $(2n +$

(D) ಎಲ್ಲಾ ತ

56. $y = 2x^{3x}$

(A) 2

57. ಒಂದು ಉತ್ತರ

ವಡಿಸುತ್ತದೆ. f

(A) 6

58. ಸರಾಸರಿ ಬೇಳೆ

ಬೇಯಿ

(A) $\frac{3}{4}$

59. $\frac{d}{dx} \left[\cos^2 \left(\cot^{-1} \sqrt{\frac{2+x}{2-x}} \right) \right]$

(A) -

60. $f(x) = x$

(A) v

(C) :