MATHS

BOOKS - MTG WBJEE MATHS (HINGLISH)

MODEL TEST PAPER 1

Category 1 Single Option Correct Type

1. The principal value of $\sin^{-1}\left\{\tan\left(\frac{-5\pi}{4}\right)\right\}$ is

A. $\frac{\pi}{4}$

B. $-\frac{\pi}{4}$

C. $\frac{\pi}{2}$

D. $-\frac{\pi}{2}$

Answer: D

Watch Video Solution

2. The coefficient of x^7 in $\frac{1-x}{(1+x)^2}$ is

A. 12

B. 15

C. -15

D. none of these

Answer: C

Watch Video Solution

3. Let $f: N \to R$ be such that $f(1) = 1$ and $f(1) + 2f(2) + 3f(3) + nf(n)$, for all $n \in N, n \geq 2$, where N is the set of natural numbers and R is the set of real numbers. Then the value of $f(500)$ is

A. 1000

B. 500

C. 1/500

D. 1/1000

Answer: D

Watch Video Solution

4. If $I_1 = \int_0^{\pi/2} x \sin x dx$ and $I_2 = \int_0^{\pi/2} x \cos x dx$,then which one of the following is true ?

A. $I_1 = I_2$

B. $I_1 + I_2 = 0$

C. $I_1 = \frac{\pi}{2} I_2$

D. $I_1 + O_2 = \frac{\pi}{2}$

Answer: D

Watch Video Solution

5. If the ratio of the sums of m and n terms of A.P. is $m^2 : n^2$, then the ratio of its m^{th} and n^{th} terms is given by

A. $(2m + 1) : (2n + 1)$

B. $(2m - 1) : (2n - 1)$

C. $m : n$

D. $m - 1 : n - 1$

Answer: B

Watch Video Solution

6. The domain of definition of f(x) = $\frac{\log_2(x+3)}{x^2+3x+2}$

A. $R = \{-1, -2\}$

B. $R - \{-1, -2, 0\}$

C. $(-3, -1) \cup (-1, \infty)$

D. $(-3, 00) - \{-1, -2\}$

Answer: D

Watch Video Solution

7. There are 8 lamps in a hall. Each one of them can be switched on independently. The number of ways in which the hall can be illuminated is

A. $8!$

B. 16

C. 255

D. 2^8

Answer: C

Watch Video Solution

8. If $A = \begin{bmatrix} 1 & 1 \\ 1 & 1 \end{bmatrix}$, then A^{100} is equal to

A. $100A$

B. $2^{99}A$

C. $2^{100}A$

D. 99A

Answer: B

Watch Video Solution

9. If $y = \frac{1}{1+x+x^2}$, then $\frac{dy}{dx} =$

A. $y^2(1+2x)$

B. $\frac{-(1+2x)}{y^2}$

C. $-y^2(1+2x)$

D. $\left(\frac{1+2x}{y^2}\right)$

Answer: C

Watch Video Solution

10. Numbers 1, 2, 3, ..., 2n($n \in N$) are printed on 2n cards. The probability of drawing a number r is proportional to r. Then the probability of drawing an even number in one draw is

A. $\frac{n+1}{n+3}$

B. $\frac{n+1}{n+3}$

C. $\frac{1}{2}$

D. $\frac{n+1}{2n+1}$

Answer: D

View Text Solution

11. Area bounded by $y = \log(x-2)$, x - axis and x = 4 is

A. $2\log 2 + 1$

B. $\log 2 - 1$

C. $\log 2 + 1$

D. $2\log 2 - 1$

Answer: D

Watch Video Solution

12. We define a binary relationon ~ on the set of all 3×3 real matrices as $A \sim B$, if and only if there exist invertible matrices P and Q suchthat $B - PAO^{-1}$. The binary relation ~ is

A. neither reflexive nor symmetric

B. reflexive and symmetric but not reflexive

C. an equivalence relation

D. an equivalence realation

Answer: D

Watch Video Solution

13. If $P(x)$ is a polynomial of degree less than or equal to 2 and S is the set of all such polynomials so that $P(0) = 0, P(1) = 1,$ and $P'(x) > 0 \forall x \in [0, 1]$, then

A. $S = \phi$

B. $S = ax + (1 - a)x^2 \forall a \in (0, 2)$

C. $S = ax + (1 - a)x^2 \forall a \in (0, \infty)$

D. $S = ax(1 - a)x^2 \forall a \in (0, 1)$

Answer: B

View Text Solution

14. The sum of the series $\frac{1}{2}x^2 + \frac{2}{3}x^3 + \frac{3}{4}x^4 + \frac{4}{5}x^5 + \ldots$ is :

A. $\frac{x}{1-x} + \log(1-x)$

B. $\frac{x}{1+x} + \log(1+x)$

C. $-\frac{x}{1+x} + \log(1+x)$

D. none of these

Answer: A

Watch Video Solution

15. If $A = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ a & b & -1 \end{bmatrix}$ and I is the unit matrix of order 3, then $A^2 + 2A^4 + 4A^6$ is equal to

A. $7A^8$

B. $7A^7$

C. $8I$

D. $6I$

Answer: A

Watch Video Solution

16. Cofficient of x^4 in the expansion of $\frac{1-3x+x^2}{e^x}$ is

A. $\frac{25}{24}$

B. $\frac{24}{25}$

C. $\frac{4}{25}$

D. $\frac{5}{24}$

Answer: A

Watch Video Solution

17. If $A\begin{bmatrix}1 & 0 & 0\\ x & 1 & 0\\ x & x & 1\end{bmatrix}$ and $I=\begin{bmatrix}1 & 0 & 0\\ 0 & 1 & 0\\ 0 & 0 & 1\end{bmatrix}$, then A^3-3A^2+3A is equal to

A. 3I

B. I

C. $-I$

D. $-2I$

Answer: B

Watch Video Solution

18. The sum of the series $\frac{1}{1.2} - \frac{1}{2.3} + \frac{1}{3.4} - \frac{1}{4.5} + \ldots$ is

A. $\log(2e)$

B. $\log(4e)$

C. $\log\left(\frac{2}{e}\right)$

D. $\log\left(\frac{4}{e}\right)$

Answer: D

Watch Video Solution

19. $\begin{vmatrix} \sin\alpha & \cos\alpha & \sin(\alpha+\delta) \\ \sin\beta & \cos\beta & \sin(\beta+\delta) \\ \sin\gamma & \cos\gamma & \sin(\gamma+\delta) \end{vmatrix} =$

A. 0

B. 1

C. $1 + \sin\alpha\sin\beta\sin\gamma$

D. $1-(\sin\alpha-\sin\beta)(\sin\beta-\sin\gamma)(\sin\gamma-\sin\alpha)$

Answer: A

Watch Video Solution

20. The general solution of $\sin x-\cos x=\sqrt{2}$, for any integer n is

A. $2n\frac{\pi_{3\pi}}{4}$

B. $n\pi$

C. $(2n+1)\pi$

D. $2n\pi$

Answer: A

Watch Video Solution

21. If n is a natural number, then

A. $1^2 + 2^2 + \ldots . + n^2 < \frac{n^3}{3}$

B. $1^2 + 2^2 + \ldots . + n^2 = \frac{n^3}{3}$

C. $1^2 + 2^2 + \ldots . + n^2 > n^3$

D. $1^2 + 2^3 + \ldots . + n^2 > \frac{n^3}{3}$

Answer: D

View Text Solution

22. IF $*$ is the operation defined by $a * b = a^b$ for $a, b \in N$, then $(2 * 3) * 2$ is equal to

A. 81

B. 512

C. 216

D. 64

Answer: D

Watch Video Solution

23. The sum of series $\frac{2}{3!}+\frac{4}{5!}+\frac{6}{7!}+\ldots\ldots\ldots\infty$ is :

A. e

B. e^{-1}

C. $2e$

D. $2e^{-1}$

Answer: B

Watch Video Solution

24. If A and B are mutually exclusive events such that $P(A) = 0.25, P(B) = 0.4,$ then $P\left(A^C \cap B^C\right)$ is equal to

A. 0.45

B. 0.55

C. 0.9

D. 0.35

Answer: D

Watch Video Solution

25. Five horses are in race. Mr. X selected two of horses at random and bets on them. The probability that Mr. X selected the winning horse is

A. $\frac{3}{5}$

B. $\frac{1}{5}$

C. $\frac{2}{5}$

D. $\frac{4}{5}$

Answer: C

Watch Video Solution

26. If ω is an imaginary cube root of unity, then the value of $\begin{vmatrix} 1 & \omega^2 & 1-\omega^4 \\ \omega & 1 & 1+\omega^5 \\ 1 & \omega & \omega^2 \end{vmatrix}$ is

A. -4

B. $\omega^2 - 4$

C. ω^2

D. 4

Answer: B

Watch Video Solution

27. The matrix product satisfies $[5, 6, 2].\ A^T = [4, 8, 1, 7, 8]$, where A^T denotes the transpose of the matrix A. Then the order of the matrix A equal to

A. 1×2

B. 5×1

C. 3×5

D. 5×3

Answer: D

Watch Video Solution

28. Solution set for the inequality $\cos^{-1} x < \sin^{-1} x$

A. $[-1, 1]$

B. $\left[\frac{1}{\sqrt{2}}, 1\right]$

C. $[0, 1]$

D. $\left(\frac{1}{\sqrt{2}}, 1\right)$

Answer: D

Watch Video Solution

29. $n^3 + 2n$ divisible by

A. 15

B. 3

C. 2

D. 6

Answer: B

Watch Video Solution

30. $\cot^{-1} 9 + \frac{\cos^{-1} \sqrt{41}}{4} =$

A. $\pi / 2$

B. $\pi / 4$

C. $\pi / 3$

D. π

Answer: B

Watch Video Solution

31. The value of $\int_0^4 |x-1|dx$ is

A. $\frac{5}{2}$

B. 5

C. 4

D. 1

Answer: B

Watch Video Solution

32. The sum of the series $1+\frac{3^2}{2!}+\frac{3^4}{4!}+\frac{3^6}{6!}+\ldots$ to ∞ is

A. e^{-3}

B. e^3

C. $\frac{1}{2}\left(e^3 - e^{-3}\right)$

D. $\frac{1}{2}\left(e^3 + e^{-3}\right)$

Answer: D

Watch Video Solution

33. Find the which function does not obey mean value theorem in $[0, 1]$

A. $f(x) = |x|$

B. $f(x) = x|x|$

C. $f(x) = \begin{cases} \frac{\sin x}{x}, & x \neq 0 \\ 1, & x = 0 \end{cases}$

D. none of these

Answer: D

Watch Video Solution

34. If the events A and B are independent if $P(\overline{A}) = \frac{2}{3}$ and $P(\overline{B}) = \frac{2}{7}$, then $P(A \cap B)$ is equal to

A. $\frac{4}{21}$

B. $\frac{3}{21}$

C. $\frac{5}{21}$

D. $\frac{1}{21}$

Answer: C

Watch Video Solution

35. Find the term independent of x in the expansion of $\left(1+x+2x^3\right)\left[\left(3x^2/2\right)-(1/3)\right]^9$

A. $\frac{15}{54}$

B. $\frac{11}{54}$

C. $\frac{12}{54}$

D. $\frac{17}{54}$

Answer: D

Watch Video Solution

36. A sphere increases its volume at the rate of $\pi cm^3/\sec$. The rate at which its surface area increases when the radius is 1 cm is

A. $2\pi sq.\ cm/s$

B. $\pi sq.\ cm/s$

C. $\frac{3\pi}{2} sq.\ cm/s$

D. $\frac{\pi}{2} sq.\ cm/s$

Answer: A

Watch Video Solution

37. If $P = \begin{bmatrix} 1 & \alpha & 3 \\ 1 & 3 & 3 \\ 2 & 4 & 4 \end{bmatrix}$ is the adjoint of 3×3 matrix A and $|A| = 4$, then $\alpha =$

A. 11

B. 5

C. 0

D. 4

Answer: A

Watch Video Solution

38. If $I_1 = \int_0^{\pi/4} \sin^2 x dx$ and $I_2 = \int_0^{\pi/4} \cos^2 x dx$, then

A. $I_1 = I_2$

B. $I_1 < I_2$

C. $I_1 > I_2$

D. $I_2 = I_1 + \pi/4$

Answer: B

Watch Video Solution

39. If $\begin{bmatrix} \alpha & \beta \\ \gamma & -\alpha \end{bmatrix}$ is to be the square root of two-rowed unit matrix, then α, β and γ should satisfy the relation

A. $1 + \alpha^2 + \beta\gamma = 0$

B. $1 - \alpha^2 - \beta\gamma = 0$

C. $1 - \alpha^2 + \beta\gamma = 0$

D. $1 + alppha^2 - \beta\gamma = 0$

Answer: B

Watch Video Solution

40. If $\sqrt{y} = \cos^{-1} x$, then it satisfies the dIfferential equation $\left(1 - x^2\right)\frac{d^2y}{dx^2} - x\frac{dy}{dx} = c$, where c is equal to

A. 0

B. 3

C. 1

D. 2

Answer: D

Watch Video Solution

41. If $P = \begin{bmatrix} 2 & -2 & -4 \\ -1 & 3 & 4 \\ 1 & -2 & -3 \end{bmatrix}$, then P^5 equals

A. P

B. 2P

C. $-P$

D. $-2P$

Answer: A

Watch Video Solution

42. If m and n denote respectively the order and degree of a differential equation

$\left[a+\left(\frac{dy}{dx}\right)^6\right]^{7/5}=b\frac{d^2y}{dx^2}$ then the value of (m, n) will be

A. $(1, 7)$

B. $(1, 6)$

C. $(2, 5)$

D. $(2, 6)$

Answer: C

Watch Video Solution

43. If α, β, γ are cube roots of unity, then the value of $\begin{vmatrix} e^{\alpha} & e^{2\alpha} & \left(e^{3\alpha}-1\right) \\ e^{\beta} & e^{2\beta} & \left(e^{3\beta}-1\right) \\ e^{\gamma} & e^{2\gamma} & \left(e^{3\gamma}-1\right) \end{vmatrix} =$

A. -2

B. -1

C. 0

D. 1

Answer: C

Watch Video Solution

44. The general solution of differential equation $\frac{d^2y}{dx^2} = e^{2x} + e^{-x}$ is

A. $4e^{2x} + e^{-x} + c_1 x + c_2$

B. $\frac{1}{4}e^{2x} - e^{-x} + c$

C. $\frac{1}{4}e^{2x} + e^{-x} + c_1 x + c_2$

D. $\frac{1}{4}e^{2x} - e^{-x} + c_1 x + c_2$

Answer: C

Watch Video Solution

45. Solution of the differential equation $xdy - ydx = 0$ represents

A. parabola

B. circle

C. hyperbola

D. straight line

Answer: D

Watch Video Solution

46. Five dice are tossed. What is the probability that the five numbers shown will be different?

A. $\frac{5}{54}$

B. $\frac{5}{18}$

C. $\frac{5}{27}$

D. $\frac{8}{81}$

Answer: A

Watch Video Solution

47. IF $\vec{a}, \vec{b}, \vec{c}$ are the position vectors of the vertices of an equilateral triangle whose orthocentre is at the origin, then

A. $\vec{a} + \vec{b} + \vec{c} = \vec{0}$

B. $\vec{a}^2 = \vec{b}^2 + \vec{c}^2$

C. $\vec{a} + \vec{b} = \vec{c}$

D. none of these

Answer: A

Watch Video Solution

48. If $\int \frac{dx}{\cos 2x + 3\sin^2 x} = \frac{1}{a}\tan^{-1}(b\tan x) + c$, then $ab =$

A. 0

B. 1

C. 2

D. 3

Answer: C

Watch Video Solution

49. $f(x) = x + |x|$ is continuous for

A. $x \in (-\infty, \infty)$

B. $x \in (-\infty, \infty) - \{0\}$

C. only $x > 0$

D. no value of x

Answer: A

Watch Video Solution

50. Let P be the set of all non - singular matrices of order 3 over R and Q be the set of all orthogonal matrices of order 3 over R. Then

A. P is proper subset of Q

B. Neither P is proper subset of Q nor Q is proper subset of P

C. $P \cap Q = \phi$ the void set

D. Q is proper subset of P

Answer: B

Watch Video Solution

Category 2 Single Option Correct Type

1. Let the coefficients of powers of in the 2^{nd}, 3^{rd} and 4^{th} terms in the expansion of $(1+x)^n$, where n is a positive integer, be in arithmetic progression. The sum of the coefficients of odd powers of x in the expansion is

A. 32

B. 64

C. 128

D. 256

Answer: B

Watch Video Solution

2. if $\begin{bmatrix} \cos\frac{2\pi}{3} & -\sin\frac{2\pi}{3} \\ \sin\frac{2\pi}{3} & \cos\frac{2\pi}{3} \end{bmatrix}^k = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$

Then the least value of k equals $(k \neq 0)$

A. 1

B. 2

C. -1

D. 3

Answer: D

View Text Solution

3. If $\int_0^y e^{-t^2} dt + \int_0^{x^2} \sin^2 t dt = 0$, then $\frac{dy}{dx}$ at $x = y = 1$ is

A. $\sin^{-1}$

B. $-e\sin^2 1$

C. $-2e\sin^2 1$

D. none of these

Answer: C

Watch Video Solution

4. If the roots of $ax^2+bx+c=0$ are of the form $\frac{m}{m-1}$ and $\frac{m+1}{m}$, then the value of $(a+b+c)^2$ is

A. b^2-2ac

B. $2b^2-ac$

C. b^2-4ac

D. $2\left(b^2-2ac\right)$

Answer: C

Watch Video Solution

5. $3^{\frac{1}{9}}.9^{\frac{1}{27}}.27^{\frac{1}{81}}.81^{\frac{1}{243}}....\infty =$

A. $\sqrt{3}$

B. 1

C. $\frac{1}{3}$

D. none of these

Answer: D

Watch Video Solution

6. The system of linear equations $x_1 + 2x_2 + x_3 = 3, 2x_1 + 3x_2 + x_3 = 3$ and $3x_1 + 5x_2 + 2x_3 = 1$, has

A. infinite number of solutions

B. exactly three solutions

C. a unique solution

D. no solution

Answer: D

Watch Video Solution

7. Let $f(x) = \left\{x^2 \left|(\cos)\frac{\pi}{x}\right|, x \neq 0 \text{ and } 0, x = 0, x \in \mathbb{R}, \right.$ then f is

A. differentiable at both x = 0 and x = 2

B. differentiable at x = 0 but not differentiable at x = 2

C. not differentiable at x = 0, but differentiable at x = 2

D. differentiable at neither x = 0 nor x = 2.

Answer: B

Watch Video Solution

8. An open cylindrical can has to be made with $100m^2$ of tin. If its volume is maximum, then the ratio of its base radius and the height is

A. $1:1$

B. $2:1$

C. $1:3$

D. $\sqrt{2}:1$

Answer: A

Watch Video Solution

9. The sum of series $\frac{7}{11}+\frac{77}{11^2}+\frac{777}{11^3}+\frac{7777}{11^4}+\ldots\ldots\infty$ is

A. $\frac{69}{77}$

B. $\frac{77}{11}$

C. $\frac{70}{99}$

D. $\frac{77}{10}$

Answer: D

Watch Video Solution

10. The function $f(x) = \dfrac{\lambda \sin x + 6\cos x}{2\sin x + 3\cos x}$ monotonically increasing if

A. $\lambda > 1$

B. $\lambda > 4$

C. $\lambda < 1$

D. $\lambda < 4$

Answer: B

Watch Video Solution

11. The value of $\int_1^e \dfrac{dx}{6x(\log x)^2 + 7x(\log x) + 2x} =$

A. $\log_e\left(\dfrac{15}{2}\right)$

B. $\log_e\left(\dfrac{6}{5}\right)$

C. $\log_e\left(\frac{3}{10}\right)$

D. $\frac{1}{5}\log_e\left(\frac{8}{3}\right)$

Answer: B

Watch Video Solution

12. An object starts from rest from the point A to rest at point B on the same straight line at a distance d. It moves over the first part of the distance with an acceleration $\alpha m/s^2$ and for the remainder the retardation $\beta m/s^2$. Find the time taken to complete the journey.

A. $2s\left(\frac{1}{a}+\frac{1}{r}\right)$

B. $\frac{2s}{\frac{1}{a}+\frac{1}{r}}$

C. $\sqrt{2s\left(\frac{1}{a}+\frac{1}{r}\right)}$

D. $\sqrt{2s(a+r)}$

Answer: C

Watch Video Solution

13. Let S_K be the sum of an infinte G.P. series whose first term is K and common ratio is $\frac{K}{K+1}(K>0)$. Then the value of $\sum_{K=1}^{\infty}\frac{(-1)^K}{S_K}$ is equal to

A. $\log_e 4$

B. $\log_e 2-1$

C. $\log_e 2+1$

D. $1-\log_e 4$

Answer: D

Watch Video Solution

14. $\frac{d}{dx}\left[\sin^2 \cot^{-1}\sqrt{\frac{1-x}{1+x}}\right]$ is

A. $-\frac{1}{2}$

B. -1

C. 1

D. $\frac{1}{2}$

Answer: D

Watch Video Solution

15. Let A and B any two events. Which one of the following statements is always true?

A. $P(A'/B) = P(A/B)$

B. $P(A/B) = P(B'/A)$

C. $P(A'/B) = 1 - P(A/B)$

D. $P(A'/B) = 1 - P(A/B')$

Answer: C

View Text Solution

Category 3 One Or More Than One Option Correct Type

1. If $\int 4(3-2x)^{-2}\left(\frac{3-2x}{3+2x}\right)^{\frac{1}{3}}dx = \frac{3}{\alpha}\left(\frac{3+2x}{3-2x}\right)^{\frac{\beta}{\gamma}} + c$ $(\beta \text{ and } \gamma \text{ are prime nos.})$, then

A. α, β, γ are in G.P.

B. α, β, γ are in H.P.

C. $\alpha a, \beta, \gamma$ are in A.P.

D. $\alpha = \beta\gamma$

Answer: D

Watch Video Solution

2. The function $f(x) = \begin{cases} |x-3|, & x \geq 1 \\ \left(\frac{x^2}{4}\right) - \left(\frac{3x}{2}\right) + \frac{13}{4}, & x < 1 \end{cases}$ is

A. continuous at x = 1

B. differentiable at x = 1

C. continuous at x = 3

D. differentiable at x = 3

Answer: A::B::C

Watch Video Solution

3. The area of the region bounded by the curve $y = e^x$ and lines x=0 and y=e is

A. $e - 1$

B. $\int_1^e \ln(e + 1 - y)dy$

C. $e - \int_0^1 e^x dx$

D. $\int_1^x \ln y dy$

Answer: B::C

Watch Video Solution

4. If A and B are independent events such that $0 < P(A) < q, 0 < P(B) < 1$ then

A. A, B are mutually exclusive

B. A and B' are independent

C. A' and B' are independent

D. $P(A \mid B)_P(A' \mid B) = 1$

Answer: B::C::D

View Text Solution

5. If $A^2 - 3A + 2I = 0$, then A =

A. I

B. $2I$

C. $\begin{bmatrix} 3 & -2 \\ 1 & 0 \end{bmatrix}$

D. $\begin{bmatrix} 3 & 1 \\ -2 & 0 \end{bmatrix}$

Answer: A::B::C::D

Watch Video Solution

6. $\frac{\tan\theta + \sec\theta - 1}{\tan\theta - \sec\theta + 1}$

A. $\frac{1 - \sin\theta}{\cos\theta}$

B. $\frac{1 + \sin\theta}{\cos\theta}$

C. $\frac{\cos\theta}{1 - \sin\theta}$

D. $\frac{\cos\theta}{1 + \sin\theta}$

Answer: B::C

Watch Video Solution

7. If

$$\int \frac{\left(\frac{1}{x} + \frac{1}{x^2}\right)(x-1)dx}{\left(\frac{1}{x^4} + \frac{1}{x^2}\right)\sqrt{(x^4 - x^3 + x^2)(x^4 + x^3 + x^2)}} = \sec^{-1}\{f(x)\} + c$$

, then

A. Maximum value of $f(x) = -2$

B. Minimum value of $f(x) = 2$

C. f(0) is not defined

D. $\frac{f(\pi)}{< f(e)}$

Answer: A::B::C

View Text Solution

8. If z is a point on the circle $|z-1| = 1$, then arg z =

A. $arg|z-1|$

B. $\frac{1}{2}arg(z-1)$

C. $arg\left(z^2 - z\right)$

D. $\frac{1}{3}arg(z^2 - z)$

Answer: B::D

Watch Video Solution

9. For which of the following values of m is the area of the regions bounded by the curve $y = x - x^2$ and the line $y = mx$ equal $\frac{9}{2}$? -4 (b) -2 (c) 2 (d) 4

A. -4

B. -2

C. 2

D. 4

Answer: B::D

Watch Video Solution

10. ${}^{2n}P_n$ is equal to

A. $(n+1)(n+2)\ldots(2n)$

B. $2^n[1\cdot 3\cdot 5.\ldots(2n-1)]$

C. $(2)\cdot(6)\cdot(10)\ldots(4n-2)$

D. $n!\left({}^{2n}C_n\right)$

Answer: A::B::C::D

Watch Video Solution