

- If $A = \begin{vmatrix} 3 & 1 & 4 \\ 2 & 6 & 2 \\ 0 & 2 & -1 \end{vmatrix}$ then co-factor of 0 is _____
a) -22 b) 22 c) 6 d) -6
- If I is unit matrix of order 3 then $I^2 =$ _____
a) 0 b) -I c) I d) unit matrix of order 6
- If $(2 \ x \ -1) \begin{pmatrix} 0 \\ x \\ 3 \end{pmatrix} = (13)$ then the value of x is _____.
a) ± 4 b) ± 3 c) 2 d) 5
- If $A = \begin{vmatrix} 4 & 1 & 2 \\ -1 & 0 & 2 \\ 3 & 4 & 5 \end{vmatrix}$ with usual notation, A_{23} is _____.
a) 13 b) -13 c) 0 d) 10
- What is the value of the matrix $\begin{pmatrix} 3 & 2 & 1 \\ 1 & 2 & 3 \end{pmatrix}$ is _____.
a) 4 b) 8 c) 0 d) meaningless
- A square matrix A is said to be non-singular if _____.
a) $|A|=0$ b) $|A| \neq 0$ c) $|\text{Adj } A|=0$ d) $|\text{Adj } A| \neq 0$
- $|\text{adj } A| =$ _____
a) $|A|$ b) $|A|^{n-1}$ c) $|A|^n$ d) $|A|^{n+1}$
- $\text{adj}(KA) =$ _____ $\text{adj } A$
a) K^n b) K^{n-1} c) K^{n+1} d) K
- Hawkins-simon conditions are satisfied when I-B are positive and _____ is positive.
a) $|I - B|$ b) $|I|$ c) $|B|$ d) $|I + B|$
- $\begin{vmatrix} a & b \\ c & d \end{vmatrix} =$ _____
a) $ab - cd$ b) $ac - bd$ c) $ad - bc$ d) $bc - ad$
- $4! =$ _____
a) 4 b) 4×3 c) $4 \times 3!$ d) $4 \times 2!$
- $0! =$ _____
a) 0 b) 1 c) 10 d) 100
- ${}^5C_1 =$ _____
a) 1 b) 5 c) 4 d) 20
- If ${}^{15}C_{3r} = {}^{15}C_{r+3}$ then $r =$ _____
a) 15 b) 5 c) 3 d) 1
- 2 persons can occupy 7 places in _____ ways.
a) 42 b) 14 c) 21 d) 7
- The middle term of $(x+a)^8$ is _____.
a) t_4 b) t_5 c) t_6 d) t_3

- The value of $\frac{1}{4!} + \frac{1}{3!}$ is _____
a) $\frac{5}{20}$ b) $\frac{5}{24}$ c) $\frac{7}{12}$ d) $\frac{1}{7}$
- If $x! = 24$ then x is _____
a) 4 b) 3 c) $4!$ d) 1
- If $\binom{5}{x} + \binom{5}{4} = \binom{6}{5}$ then x is _____.
a) 5 b) 4 c) 6 d) 0
- Circular permutations of 'n' things taken all at time is _____.
a) $n!$ b) $(n-1)!$ c) $(n+1)!$ d) $(n-2)!$
- The value of $3! + 2! + 1! + 0! =$ _____
a) 6 b) 10 c) 9 d) 8
- If any two rows are identical, the value of the determinant is _____.
a) 0 b) 1 c) -1 d) 10
- If all the elements of a matrix are zero then the matrix is _____ matrix.
a) Scalar b) Unit c) Zero d) Rectangular
- If $AA^{-1} = \begin{pmatrix} 5 & 3 \\ 2 & -1 \end{pmatrix}$ then $A^{-1}A =$ _____
a) $\begin{pmatrix} 5 & 3 \\ 2 & -1 \end{pmatrix}$ b) $\begin{pmatrix} -1 & -3 \\ -2 & 5 \end{pmatrix}$ c) $\begin{pmatrix} -5 & -3 \\ -2 & 1 \end{pmatrix}$ d) $\begin{pmatrix} -5 & 3 \\ 2 & 1 \end{pmatrix}$
- $A = \begin{pmatrix} -2 & 6 \\ 3 & -9 \end{pmatrix}$ is a _____ matrix.
a) diagonal b) scalar c) singular d) non-singular