

General Aptitude Section

Q. Who was the designer of the world trade center?

Ans. Minoru Yamasaki, Emery Roth

Q. Person writes letters to 6 friends and addresses a corresponding envelope. The number of ways in which 5 letters can be placed in the wrong envelope is?

Maths Section

Q. If $A+B+C = 180$ degrees. Then, find $\tan A + \tan B + \tan C = ?$

Ans. $\tan A \cdot \tan B \cdot \tan C$

Q. If Z_1 and Z_2 is a unimodular complex number that satisfies $Z_1^2 + Z_2^2 = 4$. Then $(Z_1 + Z_2)^2 + (Z_2 + Z_1)^2$ is equal to?

Ans. 12

Q. Evaluate $(e^{\log x} + \sin x) \cos x dx$.

Q. The DE represents the family of curves $y^2 = 2c(x + c^{2021})$ where c is the positive parameter of order?

Ans. Order 1

Q. Find the equation of the normal to the curve $x^2 = 4y$ which passes through the point (1,2)

Ans. $x = y = 3$

Q. The minimum number of times a fair coin is to be tossed so that the probability of getting at least 2 heads is at least 0.96 is?

Ans. 8

Q. Given $x = cy + bz$, $y = az + cx$, $z = bx + ay$, where x , y and z are not zero, then $a^2 + b^2 + c^2 + 2ab$ is?

Ans. 1

Q. If $x > 1$, $y > 1$ and $z > 1$ and they are in GP, then $\frac{1}{1 + \ln x}$, $\frac{1}{1 + \ln y}$ and $\frac{1}{1 + \ln z}$ is in?

Ans. Harmonic Progression (HP)

Q. Number of divisors of the form $(4n+2)$, n is greater than or equal to 0, of the integer 240 is?

Ans. 20

Q. The area of the triangle formed by the complex number z , iz and $z + iz$ is?

Ans. $\frac{1}{2|z|^2}$

Q. If A, B and C are vectors such that $|B| = |C|$, then $[(A+B) \times (A+C)] \times (B+C) \cdot (B+C)$ is?

Ans. Vector 0

Q. The locus of the midpoint of the chord of the circle $x^2 + y^2 = 4$ which subtends a right angle at the origin is?

Ans. $x^2 + y^2 = 2$