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 tanA+tanB+tanC =?
Ans. tanA.tanB.tanC

Q. If Z1 and Z2 is a unimodular complex number that satisfies Z_1^2+Z_2^2 = 4. Then (Z_1+Z_1)^2 + (Z_2+Z_2)^2 is equal to?
Ans. 12

Q. Evaluate (e^{logx} + sinx)cosxdx.

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 \(\frac{1}{1+lnx}, \frac{1}{1+lny}\) and \(\frac{1}{1+lnz}\) 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 

\[ (A+B) \times (A+C) \times (B+C). (B+C) \] 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. \( x^2 + y^2 = 2 \)