

**JEE Main 23rd Feb 2021 B.Arch and B.Plan Shift 1 Question Paper
Analysis (Available), Answer Key & Solutions
(Mathematics)**

Question 1. If $A+B+C=180$ degrees. Then find $\tan A + \tan B + \tan C = ?$.

Answer. $\tan A \tan B \tan C$

Question 2. If Z_1 and Z_2 are unimodular numbers that satisfy $(Z_1)^2 + (Z_2)^2 = 4$. Then $(Z_1+Z_2)^2 + (Z_1-Z_2)^2 = ?$.

Answer. 12

Question 3. Area of the triangle formed by the complex number z , iz and $z+iz$ is.

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

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

Answer. $x+y=3$

Question 5. No. of divisors of the form $(4n+2)$, of the integer 240 is.

Answer. 20

Question 6. The DE representing the family of curves $y^2(2c + x^{2021})$ where c is the positive parameter is of?

Answer. Order 1

Question 7. Given $x = cy+bx$, $y = az+cx$, $z = bx+ay$ where x, y and z are not all zero, then $a^2 + b^2 + c^2 + 2ab = ?$.

Answer. 1

Question 8. The minimum number of times a fair coin need to be tossed so that the probability of getting atleast two heads is atleast 0.96 is.

Answer. 8

Question 9. If $x>1, y>1, z>1$ are in G.P, then $1/(1 + \ln x), 1/(1+\ln y), 1/(1+\ln z)$ are in ?.

Answer. HP