

## NAT I Engineering Mathematics

Sr	Questions	Answers Choice
1	Every prime number is also	<p>A. Rational number            B. even number            C. Irrational number            D. multiple of two numbers</p>
2	Domain of $Y = \csc x$ is	<p>A. <math>R - n\pi, n \in I</math>            B. <math>R</math>            C. <math>R - n\pi/2, n \in I</math>            D. All negative Integers</p>
3	The multiplicative inverse of -1 in the set $\{1, -1\}$ is	<p>A. 40            B. 30            C. 50            D. 20</p>
4	The number of ways in which we can courier 5 packets to 10 cities is	<p>A. <math>2 \times 5^{10}</math>            B. <math>5^{10}</math>            C. <math>10^5</math>            D. <math>2^{10}</math></p>
5	Two natural numbers whose sum is 25 and difference is 5, are	<p>A. 25, 20            B. 20, 10            C. 20, 5            D. 15, 10</p>
6	The line through the center and perpendicular to the transverse axis is called the	<p>A. Major axis            B. Minor axis            C. Focal axis            D. Conjugate axis</p>
7	The difference of two consecutive terms of an A.P is called	<p>A. Zero            B. One            C. Four            D. Infinite</p>
8	The area of circle of unit radius=	<p>A. 0            B. 1            C. 4            D. <math>\pi</math></p>
9	The parametric equation of a curve are $x = t^2, y = t^2$ then	<p>A. <math>dy/dx = 3t/2</math>            B. <math>dy/dx = t^5</math>            C. <math>dy/dx = 5t^4</math>            D. None</p>
10	$d/dx \int x^1 dx =$ _____.	<p>A. <math>1/4 x^4</math>            B. <math>X^3</math>            C. <math>3x^3</math>            D. <math>x^4/4</math></p>
11	$\sqrt{23}$ is	<p>A. A rational number            B. A irrational number            C. An even integer            D. A factor of 36</p>
12	If $x$ lies in $\{0, 2\pi\}$ and $\text{Cosec } x = 2$ then $x =$	<p>A. <math>\pi/6</math> and <math>5\pi/6</math>            B. <math>\pi + 2n\pi</math>            C. <math>n\pi</math>            D. <math>2\pi/3</math> and <math>\pi/3</math></p>
13	$1+2+3+\dots+n=?$	<p>A. <math>n(n+1)/2</math>            B. <math>n+1/2</math>            C. <math>n(n+1)(2n+1)/6</math>            D. <math>n^3</math></p>
14	The complement of set A relative to universal set U is the set	<p>A. X            B. X            C. <math>\phi</math>            D. Universal set</p>
15	A function F(x) is called even if	<p>A. <math>F(x) = F(-x)</math>            B. <math>F(x) = F(-x)</math>            C. <math>F(x) = -F(x)</math>            D. <math>2F(x) = 0</math></p>

16	If you looking a high point from the ground then the angle formed is	<p>A. Angle of elevation  B. Angle of depression  C. Right angle  D. Horizon</p>
17	If any two rows (or any two columns) of a square matrix are inter changed, the determinant of the resultant matrix is	<p>A. True  B. False  C. Fallacious  D. Some times true</p>
18	If $\cos\theta = 0$ , Then $\theta =$	<p>A. <math>n\pi/2</math>  B. <math>(2n + 1)\pi/2</math>  C. <math>(2n - 1)\pi/2</math>  D. <math>(n \pm 1)\pi/2</math></p>
19	The total cost of 2 apples and 3 oranges is \$1.70, which of the following is true	<p>A. The cost of one apple  B. The cost of one orange  C. Both have equal cost per item  D. Cost of each single item can not be determined</p>
20	$\omega^n = ?$ , when $n = 3k$	<p>A. 0  B. <math>\omega</math>  C. 1  D. <math>1/\omega</math></p>