

NAT I Computer Science Mathematics

Sr	Questions	Answers Choice
1	The parametric equation of a curve are $x = t^2$, $y = t^2$ then	A. $\frac{dy}{dx} = \frac{3t}{2}$ B. $\frac{dy}{dx} = t^5$ C. $\frac{dy}{dx} = 5t^4$ D. None
2	In the function $v = \frac{4}{3} \pi r^3$, V is a function of	A. $\frac{3}{4}$ B. r C. v D. π
3	$F(x) = \ln x$ decreases in the interval	A. $(0, e)$ B. $(0, 1)$ C. $(-\infty, 0)$ D. None
4	The area of circle of unit radius=	A. 0 B. 1 C. 4 D. π
5	Domain of $Y = \csc x$ is	A. $\mathbb{R} - n\pi, n \in \mathbb{Z}$ B. $\mathbb{R}$ C. $\mathbb{R} - n\pi/2, n \in \mathbb{Z}$ D. All negative Integers
6	Graph of the equation $X^2 + y^2 = 4$ is	A. a circle B. an ellipse C. a parabola D. A square
7	The range of inequality $x + 2 > 4$ is	A. $(-1, 2)$ B. $(-2, 2)$ C. $(1, \infty)$ D. None
8	A function $F(x)$ is called even if	A. $F(x) = F(-x)$ B. $F(x) = F(-x)$ C. $F(x) = -F(x)$ D. $2F(x) = 0$
9	The Domain of $f(x) = \log x$ is	A. $[0, \infty]$ B. $(0, \infty)$ C. $[0, \infty[$ D. $[\infty, \infty]$
10	If $f(x) : A \rightarrow B$ and $g(x) : A \rightarrow B$ then $\text{Dom}[f(x) + g(x)]$ is	A. $\text{Dom } f(x) \cap \text{Dom } g(x)$ B. $\text{Dom } f(x) \cup \text{Dom } g(x)$ C. $[\text{Dom } f(x)]^2 - [\text{Dom } g(x)]^2$ D. $[\text{Dom } g(x)]^2 - [\text{Dom } f(x)]^2$