

NAT I Computer Science Mathematics

Sr	Questions	Answers Choice
1	The axis of the parabola $y^2 = 4ax$ is	A. $x=0$ B. $y=0$ C. $x=y$ D. $x=-y$
2	The conic is a parabola if	A. $e < 1$ B. $e > 1$ C. $e = 1$ D. $e = 0$
3	The perpendicular bisector of any chord of a circle	A. Passes through the center of the circle B. Does not pass through the center of the circle C. May or may not pass through the center of the circle D. None of these
4	The equation of the normal to the circle $x^2 + y^2 = 25$ at (4,3) is	A. $3x - 4y = 0$ B. $3x - 4y = 5$ C. $4x + 3y = 5$ D. $4x - 3y = 25$
5	The circle $(x-2)^2 + (y+3)^2 = 4$ is not concentric with the circle	A. $(x-2)^2 + (y+3)^2 = 9$ B. $(x+2)^2 + (y-3)^2 = 4$ C. $(x-2)^2 + (y+3)^2 = 8$ D. $(x-2)^2 + (y+3)^2 = 5$
6	The radius of the circle $(x-1)^2 + (y+3)^2 = 64$ is	A. 8 B. $2\sqrt{2}$ C. 4 D. 64
7	The equation of the circle with center origin and radius $2\sqrt{2}$ is	A. $x^2 + y^2 = 2\sqrt{2}$ B. $x^2 + y^2 = 8$ C. $x^2 + y^2 = 2\sqrt{2}$ D. $x^2 + y^2 = 8$
8	If a cone is cut by a plane perpendicular to the axis of the cone then the section is a	A. Parabola B. Circle C. Hyperbola D. Ellipse
9	$8 > t$ then	A. $(s-t)^2 > (t-8)^2$ B. $(s-t)^2 < (t-8)^2$ C. $(s-t)^2 = (t-8)^2$ D. None
10	$ab > 0$ and $a > 0$ then	A. $a > b$ B. $a < b$ C. $a = b$ D. None