

## FA Part 2 Mathematics Full Book Test Online

Sr	Questions	Answers Choice
1	A pair of lines of homogeneous second degree equation $ax^2 + 2hxy + by^2 = 0$ are othogonal, if:	A. $a - b = 0$ B. $a + b = 0$ C. $a + b \geq 0$ D. $a - b \leq 0$
2	If $f(x) =  x $ , $f(x)$ is a:	A. Constant function B. Absolute function C. Linear function D. Quadratic function
3	Question Image	A. Integration B. Integrand C. Constant of integration D. None of these
4	Question Image	A. $\sin x$ B. $\cos x$ C. $\sinh x$ D. $\cosh x$
5	If equation of circle is $(x - h)^2 + (y - k)^2 = r^2$ , then center of a circle:	A. $(-h, -k)$ B. $(h, k)$ C. $(-h, k)$ D. $(h, -k)$
6	Let $f(x) = x^2$ , then range of $f$ is the set of all:	A. Real numbers B. Non-negative real numbers C. Non-negative integers D. Complex numbers
7	A line that touches the curve without cutting through it is called:	A. Straight line B. Tangent line C. Normal line D. Vertical line
8	The vertex of the parabola $y^2 = -4ax$ is:	A. $(-a, 0)$ B. $(a, 0)$ C. $(0, -a)$ D. $(0, 0)$
9	Question Image	A. Lagrange B. Newtown C. Leibniz D. Cauchy
10	Question Image	A. $-\operatorname{cosec}^2 x$ B. $\operatorname{cosec}^2 x$ C. $-\operatorname{cosec} x \cot x$ D. $\operatorname{cosec} x \cot x$
11	If $f(x) = \cos x$ then $f'(0)$ is equal to:	A. 0 B. -1 C. 1
12	A function, which is to be maximized or minimized is called an _____:	A. Maximum function B. Objective function C. Minimum function D. None of these
13	Question Image	A. Line parallel to x-axis B. Line parallel to y-axis C. Line passing through the origin D. Both (a) and (b)
14	If $(x, y)$ are the coordinate of a point ordered pair is called:	A. Abscissa B. Ordinate C. Coordinate D. Ordered pair
15	Question Image	A. $[0]$ B. $[0, 0]$ C. $[0, 0, 0]$ D. None of these

16	If $r$ is the radius of the circle and its center is at origin, then equation of circle is:	<p>A. <math>x^2 + y^2 = a^2</math></p> <p>B. <math>x^2 + y^2 = r^2</math></p> <p>C. <math>x^2 - y^2 = a^2</math></p> <p>D. <math>x^2 - y^2 = r^2</math></p>
17	If $y = x^2 + 1$ _____ $x$ changes from 3 to 3.02 then $dy =$ _____	<p>A. 0.1204</p> <p>B. .12</p> <p>C. .02</p> <p>D. 1.2</p>
18	If a variable $y$ depends on a variable $x$ in such a way that each value of $x$ determines exactly one value of $y$ , then $y$ is a _____ of $x$ .	<p>A. Independent variable</p> <p>B. Not function</p> <p>C. Function</p> <p>D. None of these</p>
19	Question Image <input type="text"/>	
20	Question Image <input type="text"/>	