FSC Part 2 Mathematics Full Book Online Test

Sr	Questions	Answers Choice
1	Two vectors are equal if they:	A. Pass through the same point B. Are parallel to each other C. Are parallel to each other and have same direction D. Have equal magnitude and have same direction
2	The directrix of the parabola $x^2 = 4ay$ is:	A. x = a B. x = -a C. y = a D. y = -a
3	A parallelogram is a rhombus if and only if its diagonals are:	A. Parallel B. Perpendicular C. Equal D. None of these
4	For any point (x, y) and y - axis:	A. y = 0 B. y = -1 C. y = 1 D. x = 0
5	An angle in a semi-circle is:	A. 0° B. 90° C. 180° D. 60°
6	Question Image	A. 90° B. 30° C. 60° D. 0°
7	Question Image	A. 0 B. 1 C. -1 D. 2
8	If r is the radius of any circle and C its center, then any point $P(x_1, y_1)$ lies on the circle only if:	A. |CP| < r B. |CP| > r C. |CP| = r D. None of these
9	Length of tangent from (a, 0) to the circle $x^2 + y^2 + 2gx + 2fy + c = 0$ is:	B. c C. 2g + 2f -c D. None
10	The focus of the parabola $x^2 = 4ay$:	A. (0, a) B. (-a , 0) C. (0, -a) D. (a, 0)
11	The length of the latus rectum of the parabola $y^2 = 4ax$ is:	A. a B. 4a C. 2a D. None of these
12	Question Image	A. sech x tanh x B. -sech x tanhx C. sech² x D. -sech²x
13	One of the angles of a triangle inscribed in a circle is of 40°. If one of its' the diameter, the other angles have the measures:	A. 30°, 110° B. 40°, 100° C. 50°, 90° D. 20°, 120°
14	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
15	Question Image	A. 0 B. 1 C. 2

		D. 4
16	y = b is a horizontal line perpendicular to _____:	A. x - axis B. y - axis may be C. y - axis D. None of these
17	Point of intersection of lines x - 2y + 1 = 0 and 2x - y + 2 = 0 equals:	A. (1, 0) B. (0, 1) C. (-1, 0) D. (0, -1)
18	Question Image	A. -cosec x cotx B. cosec² x C. -cosec²x D. cosec x cotx
19	A solution of a linear inequality in x and y is an ordered pair of numbers, which _____ the inequality.	A. Does not satisfy B. May be stisfied C. Satisfies D. None of these
20	$x^2 + y^2 = 4$ is:	A. Function B. Not a function C. Ellipse D. Line