

FSC Part 2 Mathematics Full Book Online Test

Sr	Questions	Answers Choice
1	An integral of $3x^2$ is:	A. $x^{>3</sup>+c$ B. 3 C. $6x$ D. $x^{>2</sup>+c$
2	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 1 B. 2 C. 3 D. 4
3	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $\ln \sec x + \tan x + c$ B. $\ln \operatorname{cosec} x - \cot x + c$ C. $\ln \sec x - \tan x + c$ D. $\ln \operatorname{cosec} x + \cot x + c$
4	If the graph of f is entirely above the x-axis, then the definite integral is _____:	A. Positive B. Positive or negative C. Negative D. Positive and negative
5	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $\sin x$ B. $-\cos x$ C. $-\sin x$ D. $\cos x$
6	$f(x) = x \sec x$, then $f(0) =$	A. -1 B. 0 C. 1
7	$\tanh x =$	
8	Zero vector is perpendicular to:	A. Every vector B. Unit vector only C. Position vector only D. Not any vector
9	Two real and distinct tangents can be drawn to a circle from any point $P(x_1, y_1)$ _____ the circle:	A. Inside B. On C. Outside D. None of these
10	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Derivative B. Differential C. Integral D. None of these
11	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 \leq r$ B. $ CP \geq r$ C. $ CP = r$ D. None of these
12	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 0 B. 2 C. 1 D. -1
13	If the upper limit is a constant and the lower limit is a variable, then the integral is a function of:	A. x B. y C. lower limit D. upper limit
14	$y - y_1 = m(x - x_1)$ is the equation of straight line in:	A. Slope-intercept form B. Point-slope form C. Normal form D. Intercepts form
15	If the focus lies on the y - axis with coordinates $F(0, a)$ and directrix of the parabola is $y = -a$, then the equation of parabola is:	A. $x^{>2</sup> = 4ay$ B. $-x^{>2</sup> = 4ay$ C. $-y^{>2</sup> = 4ax$ D. $y^{>2</sup> = 4ax$
16	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $-\operatorname{cosec} x \cot x$ B. $\operatorname{cosec}^{>2</sup> x$ C. $-\operatorname{cosec}^{>2</sup> x$

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- 17 The vertex of parabola $(x - 1)^2 = 8(y + 2)$ is:
- A. (1, -2)
B. (0, 1)
C. (-1, -2)
D. (1, 2)
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- 18 The fixed point of the conic is called:
- A. Directrix
B. Vertex
C. Focus
D. None of these
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- 19 Let $f(x) = x^2 + 3$, then domain of f is:
- A. Set of all integers
B. Set of natural numbers
C. Set of real numbers
D. Set of rational numbers
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- 20 Length of tangent from (0,1) to $x^2 + y^2 + 6x - 3y + 3 = 0$
- A. 2
B. 1
C. 4
D. 3
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