

FA Part 2 Mathematics Chapter 3 Test Online

Sr	Questions	Answers Choice
1	Question Image	A. equal to each other B. not equal to each other C. nearly equal to each other D. None of these
2	Question Image	A. equal to each other B. not equal to each C. nearly equal to each other D. none of these
3	If $y = x^2 + 1$ _____ x changes from 3 to 3.02 then $dy =$ _____	A. 0.1204 B. .12 C. .02 D. 1.2
4	If $y = \sin x$ then $dy =$	A. $\cos y \, dx$ B. $\cos x$ C. $\cos x \, dx$ D. $\cos x \, dy$
5	The term dy (or df) = $f'(x) \, dx$ is called the _____ of the dependent variable y .	A. Differentiation B. Integration C. Differential D. None of these
6	The technique or method to find such a function whose derivative is given involves the inverse process of differentiation called:	A. Differentiation B. Integration C. Differential D. None of these
7	Question Image	A. Integration B. Integrand C. Constant of integration D. None of these
8	Question Image	A. Derivative B. Differential C. Integral D. None of these
9	Question Image	A. Integration B. Integration w.r.t.x. C. Differentiation D. Differentiation w.r.t.x
10	An integral of $3x^2$ is:	A. $x^{3+1} + c$ B. 3 C. $6x$ D. $x^{2+1} + c$
11	Question Image	A. Integration B. Integrand C. Constant of integration D. None of these
12	Question Image	A. Integral B. Indefinite integral C. Differential D. Definite integral
13	Question Image	A. $\tan x + c$ B. $-\tan x + c$ C. $\sec x \tan x + c$ D. $-\sec x \tan x + c$
14	Question Image	A. $\cos x + c$ B. $-\cos x + c$ C. $\sin x + c$ D. $-\sin x + c$
15	Question Image	A. $\tan x + c$ B. $-\tan x + c$ C. $\sec x + c$ D. $-\sec x + c$

16	Question Image	A. $\cot x$ B. $-\cot x$ C. $\operatorname{cosec} x \cot x$ D. $-\operatorname{cosec} x \cot x$
17	Question Image	A. $\operatorname{cosec} x + c$ B. $-\operatorname{cosec} x + c$ C. $\cot x + c$ D. $-\cot x + c$
18	Question Image	
19	Question Image	
20	Question Image	
21	Question Image	A. $a \operatorname{cosec} (ax + b)$ D. $\cot (ax + b)$
22	Question Image	A. $f(x)$ B. $\ln f(x) $ C. $f'(x)$ D. $\ln f'(x) $
23	Question Image	A. $\ln \sec x + \tan x + c$ B. $\ln \operatorname{cosec} x - \cot x + c$ C. $\ln \sec x - \tan x + c$ D. $\ln \operatorname{cosec} x + \cot x + c$
24	Question Image	A. $\ln \sec x + \tan x + c$ B. $\ln \operatorname{cosec} x - \cot x + c$ C. $\ln \sec x - \tan x + c$ D. $\ln \operatorname{cosec} x + \cot x + c$
25	Question Image	A. $\ln \sin x $ B. $-\ln \sin x $ C. $\ln \cos x $ D. $-\ln \cos x $
26	Question Image	A. $e^{\sup} ax^{\sup}$ B. $f(x)$ C. $e^{\sup} ax^{\sup} f(x)$ D. $e^{\sup} ax + f(x)^{\sup}$
27	Question Image	A. $e^{\sup} -x^{\sup} \sin x + c$ B. $-e^{\sup} -x^{\sup} \sin x + c$ C. $e^{\sup} -x^{\sup} \cos x + c$ D. $-e^{\sup} -x^{\sup} \sin x + c$
28	Question Image	A. $e^{\sup} 2x^{\sup} \sin x + c$ B. $e^{\sup} 2x^{\sup} \cos x + c$ C. $-e^{\sup} 2x^{\sup} \sin x + c$ D. $-e^{\sup} 2x^{\sup} \cos x + c$
29	Question Image	A. Integration by parts B. Definite integral C. Differentiation D. None of these
30	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
31	If the lower limit is a constant and the upper limit is a variable, then the integral is a function of:	A. x B. y C. lower limit D. upper limit
32	Question Image	A. domain B. range C. lower limit D. upper limit
33	Question Image	A. domain B. range C. lower limit D. upper limit
34	Question Image	A. 36 B. 42 C. 48 D. 12
35	If the graph of f is entirely above the x -axis, then the definite integral is _____:	A. Positive B. Positive or negative C. Negative

		C. Negative D. Positive and negative
36	If the graph of f is entirely below the x -axis, then the definite integral is:	A. Positive B. Positive or negative C. Negative D. Positive and negative
37	Question Image	A. integration by parts B. definite integral C. Differentiation D. None of these
38	Question Image	C. 2 D. 1
39	Area between x -axis and the curve:	A. 32 D. 16
40	Question Image	A. 0 B. 1 C. 2 D. 4
41	Question Image	A. 0 B. 1 C. 2 D. 3
42	The general solution of differential equation of order n contains n arbitrary constants, which can be determined by ----- initial value conditions.	A. 1 B. 0 C. 2 D. n