ECAT Mathematics Chapter 19 Integration Online Test

Sr	Questions	Answers Choice
1	Question Image	A. 2x + 3 B. x²+ 3 + c
2	Question Image	
3	Question Image	D. none of these
4	The process of finding a function whose derivative is given is called a	A. Differentiation B. Integration C. Differential D. None
5	The set of all antiderivaties of f(= ∫f(x)dx) is the	A. Definite integral B. Indefinite integral C. Integral D. Area
6	The function ø(x) is ananti derivativeof function f (x),x∈Df if	A. ø′(x) =∫f(x)dx B. ø(x) =∫f(x)dx C. ø′(x) =f(x) D. ø(x) =∫′(x)dx
7	The number of arbitrary constants in the general solution of a differential equation is equal to the different equation	A. Order B. Degree C. Variables D. All are correct
8	The approximate percentage increase in the volume of a cube if the length of its each edge changes from 5 to 5.02 is	A. 1.2% B. 1.5% C. 0.16% D. 100.16%
9	∛8.6 is approximately equal to	A. 2.488 B. 2.48 C. 2.0488 D. 2.05
10	The approximate increase in the area of a circular disc if its diameter increased form 44cm to 44.4cm is	A. 0.4cm B. 8.8πcm C. 17.6 πcm D. 35.2πcm
11	f(x)g(x)- ∫g(x) f′(x) dx is equal to	A. ∫f(x)g′(x)dx B. ∫f′(x)g(x)dx C. ∫f′(x)g(x)′dx D. ∫f(x)g(x)dx
12	The area bounded by y = x (x2 - 4) and below x - axis is	A. 4 B. 0 C. -4 D. 8
13	Archimedes approximate the function by horizontal function and the area under f by the sum of small	A. Parallelograms B. Squares C. Retangles D. Polygons
14	The solution of differential equation:	A. dy/dx+y/x = x²is : B. 4xy = x⁴+ c C. 4x = x⁴= c D. 4 y = x⁴+ c E. 4x=4x³ + c
15	An equation in which at least one term contains dy/dx, d^2 y /dx^2etc, is called.	A. Differential equation B. Initial condition C. General solution D. Singular equation
16	The general solution of the differential equation x dy / dx = 1 + y is:	A. 2 B. 1 C. 3 D. None
		A. 20/3

17	The area enclosed between the graph $y = x^2 - 4x$ and the x- axis is:	B. 41/3 C. 32/3 D. 25/3
18	The area under the curve $y = 1/x^2$ between x = 1 and x =4 is:	A. -25 B. 0.75 C. -0.35 D. -10
19	The area between the x-axis the curve y =4x-x2 is :	A. 32/2 B. 15 C. 18 D. 21
20	The area between the x-axis and the curve $y = x^2 + 1$ from x = 1 to 2 is:	A. 15/6 B. 15/4 C. 10/4 D. 10/3
21	$\int x/\text{Sin}^2 x\, dx$ is equal to:	A. x cot x + ln|sin x| B. -x cot x - ln|sin x| C. x cot x - ln|sin x| D. x. tan x- ln|sec x|
22	$\int x \sin x dx$ is equal to:	A. sin x/x + cos x B. sin x - cos x/x C. x cos x + sin x D. - x cos x + sin x
23	$\int x \cos dx$ is equal to :	A. x cos x + sin x B. cos x + x sin x C. x cos x + x sin x D. x sin x + cos x
24	$\int \sin(ax+b)\, dx$ is equal to:	A. 1/2a cos (ax + b) B. -1/a cos (ax +b) C. 1/a cos (ax +b) D. 1/a ln (ax + b)
25	$\int \text{Sec}^2 (ax + b)\, dx$ is equal to:	A. tan² (ax + b) B. 1/a tan² (ax + b) C. 1/atan (ax +b) D. tan (ax + b)
26	The integral of $3x^5 dx$ is:	A. 15 x⁴ B. x⁶/2 C. 1/6x⁵ D. x⁵/ln3
27	$\int f(x)$ is known as:	A. Definite itegral B. Indefinite integral C. Fixed integral D. Multiple integral
28	An integral of 1/x dx is:	A. 1/x² B. 1/-x² C. 1/lnx D. lnx
29	Which of the following integrals can be evaluated	
30	Question Image	