

## ECAT Mathematics Chapter 19 Integration

Sr	Questions	Answers Choice
1	Question Image	
2	Question Image	
3	Question Image	
4	Question Image	B. $\tan 3x + c$ C. $\cot 3x + c$ D. $-\cot 3x + c$
5	Question Image	
6	Question Image	
7	$\int x \cos x \, dx$ is equal to :	A. $x \cos x + \sin x$ B. $\cos x + x \sin x$ C. $x \cos x + x \sin x$ D. $x \sin x + \cos x$
8	If the graph of $f$ is entirely below the $x$ -axis, then the value of definite integral is	A. $= 0$ B. $< 0$ C. $> 0$ D. None
9	$\int x/\sin^2 x \, dx$ 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 $
10	Question Image	A. Always negative B. Zero C. Always positive D. Infinity
11	Question Image	
12	The process of finding a function whose derivative is given is called a	A. Differentiation B. Integration C. Differential D. None
13	Question Image	
14	The differential equation representing the family of curves $y = A \cos(x + B)$ , where $A, B$ are parameters, is	
15	Question Image	
16	Question Image	B. $\sin 2x + c$ C. $-\sin 2x + c$
17	The integral of $3x^5 dx$ is:	A. $15 x^{<sup>4</sup>}$ B. $x^{<sup>6</sup>}/2$ C. $1/6 x^{<sup>5</sup>}$ D. $x^{<sup>5</sup>}/\ln 3$
18	Question Image	
19	Question Image	
20	Question Image	