

## ECAT Mathematics Chapter 19 Integration

Sr	Questions	Answers Choice
1	Question Image	
2	Question Image	A. $1 + \tan^2 x + c$ B. $\tan x + c$ C. $-\tan x + c$ D. $\cot x + c$
3	$\int x \sin x dx$ is equal to:	A. $\sin x/x + \cos x$ B. $\sin x - \cos x/x$ C. $x \cos x + \sin x$ D. $-x \cos x + \sin x$
4	Question Image	
5	Question Image	
6	Question Image	A. $6x - 2 + c$ B. $x^3 - x^2 + x + c$ C. $6x - x^2 + c$ D. $6x^3 - x^2 + c$
7	Question Image	
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	Question Image	
10	Question Image	A. $a \operatorname{cosec}(ax + b) + c$ B. $-a \operatorname{cosec}(ax + b) + c$
11	Question Image	A. $\operatorname{cosec} x + c$ B. $-\operatorname{cosec} x + c$ C. $-\sec x + c$ D. $\sec x + c$
12	The approximate increase in the area of a circular disc if its diameter increased from 44cm to 44.4cm is	A. 0.4cm B. $8.8\pi$ cm C. $17.6\pi$ cm D. $35.2\pi$ cm
13	The differential equations of all conics whose axes coincide with the co-ordinate axis is	
14	Question Image	
15	Question Image	
16	Question Image	B. $6x + 2 + c$ C. $6x + x^2 + c$ D. $6x^3 + x^2 + x$
17	Question Image	
18	An equation in which at least one term contains $dy/dx$ , $d^2y/dx^2$ etc, is called.	A. Differential equation B. Initial condition C. General solution D. Singular equation
19	Question Image	A. $\sec 5x + c$ B. $-\sec 5x + c$
20	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