ECAT (Pre-Eng) Mathematics Chapter 19 Integration

Sr	Questions	Answers Choice
1	Question Image	
2	Question Image	A. a cosec(ax + b) + c B. - a cosec(ax + b) + c
3	Question Image	A. 4(x³- 3x²)³+ c B. 3x²- 6x + c
4	Question Image	A. A variable B. A constant C. 0 D. None of these
5	The area bounded by y = x (x2 - 4) and below x - axis is	A. 4 B. 0 C. -4 D. 8
6	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
7	Question Image	A. Always negative B. Zero C. Always positive D. Infinity
8	$\int x/\sin^2 x\, dx$ is equal to:	A. x cot x + ln|sinx | B. -x cot x - ln|sinx | C. x cot x - ln|sinx | D. x. tan x- ln|secx |
9	$\int \sec^2 (ax + b)\, dx$ is equal to:	A. tan² (ax + b) B. 1/a tan² (ax + b) C. 1/atan (ax +b) D. tan (ax + b)
10	Question Image	
11	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%
12	Question Image	
13	The arbitrary constants involving in the solution can be determined by the given conditions. Such conditions are called	A. Boundaries B. Variable separable C. Initial values D. None
14	Question Image	
15	Question Image	A. 2, 3 B. 3, 3 C. 2, 6 D. 2, 4
16	Question Image	A. cos x + c B. -sin x + c C. -cos x + c D. sin x + c
17	Question Image	A. a cos(ax + b) + c B. - a cos(ax + b) + c
18	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

19	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
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