ECAT Mathematics Chapter 18 Basic Concepts & Definitions

Sr	Questions	Answers Choice
1	The derivative of $1/x^m$ is:	A. x^{m+1}/ m B. m(x)^{m-1} C. (m-1) x^{-m} D. m/x^{m+1}
2	Question Image	A. 8 B. 1/8 C. 1/3 D. 2/3
3	Question Image	
4	If $x^2 + y^2 = 1$, then dy/dx	A. y/x B. -x/y C. 1/x D. None of these
5	Question Image	
6	Question Image	
7	Question Image	A. 1 B. 0 C. cx D. c
8	Question Image	
9	Differentiation of sin x w.r.t. cot x is:	A. -sin² x sec x B. -cos x sin² x C. -cos² x tan x D. -sin² x
10	If $y = (7x + 9)^2$, then dy/dx equals:	A. 98x +126 B. 14x C. 14x +18 D. 14x+81
11	Question Image	
12	Question Image	A. zero at x B. differentiable at x C. continuous at x D. none of these
13	Question Image	A. x²+ 2 B. 3x + 2 C. 3x²+ 5 D. 3x²+ 2
14	Question Image	A. 2x B. x/2 C. 2x³ D. x³/2
15	$d/dx(x^3 + 2x + 3)=$	A. x²+ 2 B. 3x + 2 C. 3x²+ 5 D. 3x2 + 2
16	If 3x + 4y +7 = 0 , then dy / dx =	A. -1/2 B. -4/3 C. 7/2 D. -3/4
17	Question Image	
18	If $f(x) = x^{-100}$ the value of f^1 (1) is:	A. 100 B. -100 C. 0 D. -101
		A. 2tan x sec² x

19	d/dx [$\tan^2 x$]	B. 2tan x sec x C. 2 cot x tan x D. 2sec² x cos² x
20	Question Image	