ECAT Mathematics Chapter 18 Basic Concepts & Definitions

Sr	Questions	Answers Choice
1	Question Image	A. 1 B. 0 C. cx D. c
2	Question Image	A. 8 B. 1/8 C. 1/3 D. 2/3
3	Question Image	B. xⁿ⁻¹
4	Question Image	
5	If $y=x^m$ then dy/dx equals:	A. mx B. x/m C. mx^{m-1} D. xm^{m-1}
6	Question Image	A. 0 B. 8 C. 5 D. 9
7	Question Image	A. x²+ 2 B. 3x + 2 C. 3x²+ 5 D. 3x²+ 2
8	Question Image	A. -2x B. x⁻³ D. -2x³
9	If $x = at^2$ and y = 2at then dy/dx =	A. 2a/y B. y/2a C. -a/2y D. -2y/a
10	Question Image	A. 2x B. x/2 C. 2x³ D. x³/2
11	d/dx [$\tan^2 x$]	A. 2tan x sec² x B. 2tan x sec x C. 2 cot x tan x D. 2sec² x cos² x
12	Question Image	
13	d/dx (cos x sin x) =	A. cos² x - sin² x B. 2cos²x + sin² x C. 2cos² x - sin² x D. 1 - sin²x
14	Question Image	
15	$f(x) = ax^2-3x-5$, and $f^1(2) = 9$, a is equal to	A. 2 B. 3 C. -2 D. 4
16	If 3x + 4y +7 = 0 , then dy / dx =	A. -1/2 B. -4/3 C. 7/2 D. -3/4
17	If $f(x) = c$ then f^1 (x0 equals:	A. 1 B. 0 C. cx

		D. c
18	If $y = 1/x^2$ then dy/dx equals:	A. -2x B. x⁻³ C. -2/x³ D. -2x³
19	$d/dx (\cos x^2) =$	A. -2x cos x B. -2x sin x² C. -2x tan x D. -2x sec² x
20	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}