NTS Educators ESE (Science) Jobs Test

Sr	Questions	Answers Choice
1	Which of the following is not defined?	A. Arcsin 1/9 B. ArcCos (-4/3) C. Arctan 11/12 D. Arccot (-4)
2	d/dx a^x is	A. xa^{x-1} B. a^x C. x in a D. a^x in a
3	The average of first 100 integers is=	A. 50 1/2 B. 25 1/4 C. 100 D. 5050
4	If y = sin(ax + b) then fourth derivative of y with respect to x=	A. a⁴ cos (ax + b) B. a⁴ sin (ax + b) C. -a⁴ sin(ax +b) D. a4 tan (ax + b)
5	Derivative of strictly increasing function is always	A. Zero B. Positive C. Negative D. Both A and B
6	The set (Q, .)	A. Infinite set B. Singleton set C. Two points set D. None
7	Given eight points in a plane no three of which are collinear how many lines do the points determine?	A. 16 B. 64 C. 28 D. 36
8	What is the domain of y = Cot^{-1} x?	A. Set of irrational numbers only B. Set of all real numbers C. Set of integers only D. Set of complex numbers only
9	The sum of the series 1+5+9+13+17+21+25+29 is:	A. 10 cm B. 20 cm C. 30 cm D. 40 cm
10	Tan^{-1} 1/x =_____	A. Sin x B. Sec⁻¹ X C. Cot⁻¹ X D. Sin lx/cos- lx
11	The area of circle of unit radius=	A. 0 B. 1 C. 4 D. π
12	If A = (3,8) and B = (5,6) then the distance between A and B is	A. 2√2 B. 2 C. 1 D. 6
13	If A and B are matrices of same order than (A + B)(A + B)=	A. addition B. multiplication C. subtraction D. None
14	If Cosθ =0, Then θ=	A. nπ/2 B. (2n + 1)π/2 C. (2n - 1)π/2 D. (n ±1)π/2
15	If sin θ= 3/5 Cos θ=	A. 1/2 B. 3/5 C. 4/5 D. 1

16	Which of the following is the equation of a line with slope 0 and passing through the point (4,3)	A. X =4 B. X = -4 C. Y = 3 D. Y = -6
17	A relation in which the equality is true only for some values of the unknown variable is called	A. An identity B. An equation C. A polynomial D. Inverse function
18	Which is in the solution set of 4x - 3y <2	A. (3,0) B. (4,1) C. (1,3) D. None
19	Area of ΔABC=	A. ab sin α B. 1/2 ab sin α C. 1/2 ac Sin γ D. 1/2 ac Sin β
20	x^2 +2x -25 = 0 is	A. 1 B. 2 C. 3 D. 4