NTS Educators ESE (Science) Jobs Test

Sr	Questions	Answers Choice
1	The statement that a group can have more than one identity elements is	A. True B. False C. Fallacious D. Some times true
2	The value of x, and y, when $(x+iy)^2=5+4i$	A. X=2, y=-1 B. X=-2, y=1 C. X=2, y=-i D. X=2, y=2
3	Which is in the solution set of 4x - 3y <2	A. (3,0) B. (4,1) C. (1,3) D. None
4	If f_1 (x) and f_2 (x) are any two anti derivatives of a function F (x) then the value of f_1 (x) = f_2 (x)	A. A variable B. A constant C. Undefined D. Infinity
5	d/dx $\int x^1$ dx =_____.	A. 1/4 x⁴ B. X³ C. 3x³ D. x⁴/4
6	Sin^{-1} √3/2 =?	A. 2π/3 B. π/2 C. π/3 D. v/5
7	The cube roots of unity ω = ----------	A. 1-i √-3 / 2 B. -1+i √-3 / 2i C. -1+i √3 / 2 D. 1+i √3 / 2
8	If α and β be irrational roots of a quadratic equation, then	A. α = b/a and β = ca B. α = a/b and β = -c/a C. α² + β² = 1 D. α = -b/a and β= c/a
9	A fraction in which the degree of the numerator is less than the degree of the denominator is called	A. 1-i √-3 / 2 B. -1+i √-3 / 2i C. -1+i √3 / 2 D. 1+i √3 / 2
10	In a school, there are 150 students. Out of these 80 students enrolled for mathematics class, 50 enrolled for English class, and 60 enrolled for Physics class. The student enrolled for English cannot attend any other class, but the students of mathematics and Physics can take two courses at a time. Find the number of students who have taken both physics and mathematics.	A. 40 B. 30 C. 50 D. 20
11	The axis of the parabola $y^2 = 4ax$ is	A. x =0 B. Y =0 C. X = y D. X = -y
12	The two consecutive positive integers whose product is 56 are	A. 7, 8 B. 14, 4 C. 28, 2 D. 56, 1
13	Tan (π + Tan^{-1} x) =?	A. Tan x B. X C. -x D. Cot⁻¹ x
14	A function F(x) is called even if	A. F(x) = F(-x) B. F(x) = F(-x) C. F(x) = -F(x) D. 2F(x) = 0
15	The equation of the normal to the circle $x^2 + 2^2 = 25$ at (4,3) is	A. 3x -4y =0 B. 3x -4y= 5 C. 4x + 3y=5

		D. 4x - 3y =25
16	The multiplicative inverse of x such that x = 0 is	A. -x B. does not exist C. 1/x D. 0
17	Complex roots of real quadratic equation occur in	A. Nilpotent matrix B. Singular matrix C. Non singular matrix D. Diagonal matrix
18	The line through the center and perpendicular to the transverse axis is called the	A. Major axis B. Minor axis C. Focal axis D. Conjugate axis
19	Period is Tan x/5 is	A. 5π B. 4π C. 2π D. π/5
20	If |A| ≠ 0 then A is called	A. 1 B. -1 C. ±1 D. 0