NAT I General Science

Sr	Questions	Answers Choice
1	π/3 is	A. A positive integer B. A negative integer C. A natural number D. An irrational number
2	If ab > 0 and a < 0, which of the following is negative?	A. b B. -b C. -a D. (a - b)²
3	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
4	If a rectangle has an area $81x^2$ and length of 27x. then what is its width?	A. 3x B. 9x C. 3x² D. 9x²
5	r + 3 > 5 then which is true	A. r + 2 > 4 B. r + 2 < 4 C. r + 2 + 4 D. None
6	A fraction in which the degree of the numerator is less than the degree of the denominator is called	A. Polynomial B. Proper fraction C. Rational fraction D. Mixed fraction
7	Partial fraction of $1/x^3$-1 will be of the form	A. A/ x +1 + B /x²-x+1 B. A/ x -1 + B /x²+x+1 C. A/x -1 + Bx+ x/x²+x+1 D. None
8	If A and B are matrices such that AB=BA=I then	A. A and B are multiplicative inverse of each other B. A and B are additive inverses of each other C. A and B are singular matrices D. A and B are equal
9	Second derivative of $y = x^9 + 10x^2 + 2x - 1$ at x = 0 is	A. 10 B. 20 C. 12 D. 1
10	The multiplicative inverse of -1 in the set {1-,1} is	A. 1 B. -1 C. ±1 D. 0
11	What is the domain of $y= Sin^{-1} x$?	A. -1 ≤ x ≤1 B. 1 ≤ x ≤ 1 C. 0 ≤ x ≤ π D. -π/2 ≤ x ≤ π/2
12	How many elements are in the sample space of two rolling dies	A. 6 B. 12 C. 18 D. 36
13	The total cost of 2 apples and 3 oranges is $1.70,which of the following is true	A. The cost of one apple B. The cost of one orange C. Both have equal cost per item D. Cost of each single item can not be determined
14	If Z= (1,2). tjem Z^{-1} = ?	A. (0.2, 0.4) B. (-0.2, 0.4) C. (0.2, -0.4) D. (-0.2, -0.4)
		A. 1/2

15	A die is thrown what is the probability that there is a prime number on the top?	B. 1/3 C. 1/6 D. 2/3
16	Cse π/3	A. 2 B. 1 C. 0 D. 2/√3
17	The area of circle of unit radius=	A. 0 B. 1 C. 4 D. π
18	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
19	Graph of the equation $X^2 + y^2 = 4$ is	A. a circle B. an ellipse C. a parabola D. A square
20	The value of Cos (1/2 Cos^{-1} 1/2) is equal to	A. √3/2 B. -3/4 C. 1/16 D. 1/4