NAT I General Science Mathematics

Sr	Questions	Answers Choice
1	The set (Q, .)	A. Infinite set B. Singleton set C. Two points set D. None
2	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
3	If P(E) is the probability that can event will occur then P(E)=	A. 1 B. 0.5 C. 2 D. 0
4	One of the roots of the equation $2x^2$ + 3x + n = 0 is the reciprocal of the other, then n = ----------	A. Both A,B have the same number of columns B. Both A,B do not have the same order C. Number of col A is same as number of rows of B D. Number of rows of A is same as number of col of B
5	The equation of the circle with center origin and radius 2√2 is	A. x² + y² = 2√2 B. x² + y² = 8 C. x² - y² = 2√2 D. x² - y² = 8
6	If Sin^{-1} x + cos^{-1} y = π, then x and y are	A. Associative angles B. Complementary angles C. Reflex angles D. Supplementary angles
7	Sin(a + b) + Sin(a- b) =	A. Sin a Cos b B. Sin a Sin b C. Sin a + Cos b D. Sin a - 2Cos b
8	What is the period of Cot x?	A. 2π B. π C. π/2 D. 4π
9	The center of a circle of radius 10 is on the origin which of the following points lies with in the circle	A. (10,0) B. (8,8) C. (8,4) D. (0,10)
10	The multiplicative inverse of -1 in the set {1-,1} is	A. 40 B. 30 C. 50 D. 20
11	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)
12	Which is not included in the domain of Cos^{-1} x	A. 0 B. 1 C. -1 D. 2
13	If sin θ= 3/5 Cos θ=	A. 1/2 B. 3/5 C. 4/5 D. 1
14	If f (x) = x/x^2- 4 then which is not included in the domain of f(x)	A. 0 B. -2

	If $f(x) = x^2 - 4$ then which is not included in the domain of $f(x)$	C. 1 D. 4
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	Complex roots of real quadratic equation occur in	A. Nilpotent matrix B. Singular matrix C. Non singular matrix D. Diagonal matrix
17	There are 30 Red, 20 Green and some Blue bells in a bag if the probability of finding a Red ball is 1/3,how many are red balls in the bag	A. 120 B. 20 C. 40 D. 90
18	The angle a (0° < a< 180°) measured counterclockwise from positive x-axis to a non-horizontal straight line / is called the	A. Rotation B. Inclination C. Radian D. None
19	A die is thrown what is the probability that there is a prime number on the top?	A. 1/2 B. 1/3 C. 1/6 D. 2/3
20	If $Z_1 = \sqrt{-36}$, $Z_2=\sqrt{-25}$, $Z_3= \sqrt{-16}$, then what is the sum of Z_1, Z_2 and Z_3 ?	A. √3 I B. √7 C. -2-1 D. √5