NAT I General Science Mathematics

Sr	Questions	Answers Choice
1	If f(x) : A → B and g (x) : A → B then Dom [f(x) + g(x)] is	A. Dom f(x) ∩ Dom g (x) B. Dom f(x) ∪ Dom g(x) C. [Domf(x)]² - [Dom g(x)]² D. [Dom g(x)]²-[Domf(x)] ²
2	If f (x) = x/x^2- 4 then which is not included in the domain of f(x)	A. 0 B. -2 C. 1 D. 4
3	If A and B are two events then P(A∪B) =? (when A and B are disjoint)	A. P(A) - P(B) B. P(A) x P(B) C. P(A) + P(B) D. P(A) + P(B) -P(A∩B)
4	In the figure PS is perpendicular to QR, if PQ = PR 26 and P8 = 24,then QR=	A. 10 B. 20 C. 40 D. 26
5	The perpendicular bisector of any chord of a circle	A. Passes through the center of the circle B. Does not pass through the center of the circle C. May or may not pass through the center of the circle D. None of these
6	3/2 is	A. An irrational number B. Whole number C. A positive integer D. A rational number
7	If the sum of the roots of (a + 1)x^2 + (2a + 3)x + (3a + 4) = 0 is -1, then product of the roots is	A. Commutative law w.r.t multiplication B. Associative law w.r.t addition C. Distributive law w.r.t addition D. Multiplication of a scalar with the matrix
8	Derivative of strictly increasing function is always	A. Zero B. Positive C. Negative D. Both A and B
9	Sin^{-1} √3/2 =?	A. 2π/3 B. π/2 C. π/3 D. v/5
10	Two natural numbers whose sum is 25 and difference is 5, are	A. 25, 20 B. 20, 10 C. 20, 5 D. 15, 10
11	If 0 is not an integral multiple of π/2 then Cot^4 θ+ Cot^2 θ=?	A. Cosec⁴ θ - Cosec²θ B. Tan θ - Tan² θ C. Cosec² θ + Cosec θ D. Sinθ Cosθ
12	The parametric equation of a curve are x = t^2, y = t^2 then	A. dy/dx =3t/2 B. dy/dx =t⁵ C. dy/dx =5t⁴ D. None
13	The number of real roots in cube roots of 8 is ?	A. n x m B. m x n C. km x n D. m x kn
		A. 0

14	Which is not included in the domain of Cos^{-1} x	B. 1 C. -1 D. 2
15	If a line passes through origin then the equation of the line is	A. y = m/x B. y = mx C. x = my D. None
16	Sin-1 (√2/2)=?	A. π/2 B. π/3 C. 3π/4 D. 2π
17	If Cosα = 3/5, Cosβ = 5/13, then	A. Cos(α +β) =33/65 B. Sin(α +β) =56/65 C. sin²(α +β/2) =1/65 D. Cos(α +β) =63/65
18	If 4 - x > 5, then	A. x > 1 B. x > -1 C. x < 1 D. x < -1
19	The principal value of sin^{-1} [√3/2] is	A. π/3 B. -π/3 C. 2π/3 D. 5π/3
20	Sin x + Cos x=1 x=	A. π B. π/2 C. π/3 D. π/4