NAT I General Science Mathematics

Sr	Questions	Answers Choice
1	$(x+2)^2 = x^2 +4x +4$ is	A. 1 B. 2 C. 3 D. 4
2	The set of all positive even integers is	A. Φ B. {1,2,3} C. {Φ} D. {0}
3	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
4	Sin^{-1} (-x) =?	A. Sin⁻¹ x B. -Sin⁻¹ x C. Cos⁻¹ x D. -Cos⁻¹ x
5	The nth term of A,P:1,5,9,15.....is given by	A. 4n - 3 B. 4n + 1 C. 3n -4 D. 4n +3
6	If Sin θ =Cosθ then θ=	A. 30° B. 45° C. 60° D. 90°
7	Which is not included in the domain of Cos^{-1} x	A. 0 B. 1 C. -1 D. 2
8	The equation of two polynomials P(x)/Q(x) where Q(x) ≠ 0 with no common factor is called	A. 12 B. 1 C. 10 D. -10
9	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
10	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)
11	Which of the following is solution of Tan^2 x = 1/3	A. 7π/6 B. 5π/6 C. π/6 D. All
12	The fifth term of the sequence a_n = 3n - 2 is	A. 3 B. -3 C. 13 D. -13
13	d/dx ($3y^4$) =	A. 12y³ dy/dx B. 8y³ C. 8y³ dy/dx D. 12y³
14	If x < y, 2x = A and 2y = B then	A. A =B B. A < B C. A< X D. B < y
15	The direction cosines of y-axis are	A. 1,0,0 B. 0,1,0 C. 0,0,1 D. 1,1,1

16	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
17	The set of the first elements of the ordered pairs forming a relation is called its	A. -x B. does not exist C. 1/x D. 0
18	Tan (π + Tan^{-1} x) =?	A. Tan x B. X C. -x D. Cot⁻¹ x
19	Sec^{-1} x=	A. Cos⁻¹ 1/x B. Cosec⁻¹ 1/x C. Cos-1 (-x) D. Tan⁻¹ x
20	If f(x) = x^3- $2x^2$ +4x-1, then f(-2) =?	A. 0 B. -25 C. 5 D. 45