NTS Educators ESE (Science) Jobs Test

Sr	Questions	Answers Choice
1	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
2	120° degrees are equal to how many radians?	A. π/3 radians B. 2π/3 radians C. π/4 radians D. π/2 radians
3	The principal value of $\sin^{-1}$ [√3/2] is	A. π/3 B. -π/3 C. 2π/3 D. 5π/3
4	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
5	Cos^{-1} (-x) =_____.	A. π +cos⁻¹ x B. π -sin⁻¹ x C. π +sin⁻¹ x D. π -cos⁻¹ x
6	Which of the following is not defined?	A. Arcsin 1/9 B. ArcCos (-4/3) C. Arctan 11/12 D. Arccot (-4)
7	AreCot √3 =?	A. π/2 B. π C. 2π D. π/6
8	Sin-1 (√2/2)=?	A. π/2 B. π/3 C. 3π/4 D. 2π
9	Sin^{-1} √3/2 =?	A. 2π/3 B. π/2 C. π/3 D. v/5
10	Tan (π + Tan^{-1} x) =?	A. Tan x B. X C. -x D. Cot⁻¹ x
11	Sin^{-1} x =?	A. π/2- Sin⁻¹ x B. π/2 -Cos⁻¹ x C. -Sin⁻¹ x D. -Cos⁻¹ x
12	Sin^{-1} (-x) =?	A. Sin⁻¹ x B. -Sin⁻¹ x C. Cos⁻¹ x D. -Cos⁻¹ x
13	Period of Sin 2x =	A. π B. 4π C. 2nπ D. 2π
14	What is the period of Cot x?	A. 2π B. π C. π/2 D. 4π
15	What is the domain of y = Cot^{-1} x?	A. Set of irrational numbers only B. Set of all real numbers C. Set of integers only D. Set of complex numbers only

16	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
17	If A = (3,8) and B = (5,6) then the distance between A and B is	A. 2√2 B. 2 C. 1 D. 6
18	Sin x + Cos x=1 x=	A. π B. π/2 C. π/3 D. π/4
19	If Sin θ =Cosθ then θ=	A. 30° B. 45° C. 60° D. 90°
20	Cos 315° =	A. 0.707 B. 0.5 C. 1 D. 0
21	Period is Tan x/5 is	A. 5π B. 4π C. 2π D. π/5
22	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
23	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
24	If 2 Sin x Cos 2 x = Sin x then?	A. X = nπ+ π/6 B. X = nπ +π/3 C. X = nπ +1 D. X = nπ + π/2
25	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
26	In the triangle Δ ABC, where C is the right angle Tan A + Tan B=	A. A +B B. C² /AB C. A²/BC D. B²/AC
27	Sin (2π -θ) =_____.	A. Cosθ B. -Sinθ C. -Sinθ D. -cosθ
28	Cot 360° =_____.	A. Undefined B. 0.707 C. -0.5 D. 0
29	Sin 720° = _____	A. 1 B. 0 C. 2 D. 1/2
30	If sinθ = 1 then θ =	A. 2nπ +π/2 B. 2nπ C. 2π +n D. Nπ +π/2