Mathematics ECAT Pre Engineering Chapter 15 Inverse Trigonometric Functions Online Test

Sr	Questions	Answers Choice
1	Question Image	A. π / 3 B. π / 4 C. π / 2 D. π
2	What is the value of cos (cos-1 2) ?	A. √2 B. 1/2 C. undefine D. 0
3	Question Image	A. π/ 2 B. π/ 3 C. π/ 4 D. π
4	Question Image	A. π / 3 B. π / 4 C. π / 6 D. 0
5	Question Image	
6	Question Image	A. π B. π / 2 C. π / 3 D. π / 4
7	Question Image	
8	sin -1(sin2π/3) =	A. π/2 B. 2π/3 C. -3π/2 D. π/3
9	$\sin[\cot^{-1}\{\cos(\tan^{-1}x)\}]=$	
10	What is the value of cos-1(1/2)?	A. π/3 B. π/4 C. 3π/2 D. π/6
11	The exact degree value of the function sin-1(-√3/2) is	A. 70^o B. 50^o C. 90^o D. 60^o
12	Question Image	A. 0 B. -1 C. 1/2 D. 1
13	Question Image	
14	Question Image	
15	The value of sin [arc cos (-1/2)] is	
16	$\tan^{-1}(1/4) + \tan^{-1}(2/9)$ is equal to	A. 1/2 cos⁻¹(3/5) B. 1/2 sin⁻¹(3/5) C. 1/2 tan⁻¹(3/5) D. tan⁻¹1/2
		A. π

17	The exact value of $\cos^{-1}(-1) + \cos^{-1}(1) =$	B. -π C. π/2 D. π/3
18	$\sin^{-1}(-x)=$	A. Cos⁻¹1/x B. - Sin⁻¹X C. Cot⁻¹X D. None of these
19	The range of the principle cot function is	
20	If cos (2 sin-1 x) = 1/9 , then what is the value of x?	A. 1/3 B. -2/3 C. 2/3 D. 2/3 , -2/3
21	Question Image	
22	Question Image	
23	The value of cos(cos-1 1/2) is	A. 1/2 B. √3/2 C. -1/2 D. 1/√2
24	$\tan(\cot^{-1}x)$ is equal to	A. cot(tan⁻¹x) B. tan x C. secon x D. None of these
25	$\sec^{-1}x =$	A. Cos⁻¹1/x B. cosec⁻¹1/x C. Cos⁻¹(-x) D. Tan⁻¹x
26	Question Image	
27	Question Image	
28	Question Image	
29	The range of the principal sine function is	
30	Question Image	
31	Question Image	
32	If $\tan^{-1}3 + \tan^{-1}x = \tan^{-1}8$, then x=	A. 5 B. 1/5 C. 5/14 D. 14/5
33	Question Image	
34	$\tan^{-1}1/x =$ _____	A. sin x B. sec⁻¹X C. cot⁻¹X D. None of these
35	The value of sin-1 24/25 is equal to	A. csc-1 25/24 B. sec-1 24/25 C. 2 tan-1 4/5 D. 2cos-1 24/25
36	Question Image	
37	Question Image	A. 1/3 B. 1 C. 3 D. None of these
38	Question Image	A. 1 B. 7 C. 4 D. None of these
39	Question Image	A. 1 B. 0 C. 3 D. -3
40	Question Image	A. 1 B. -1 C. 0 D. None of these
		A. π/2<o:p></o:p>

41	The Principal value of sin-1 (-1/1/2)	B. -π/2<o:p></o:p> C. π<o:p></o:p> D. -π<o:p></o:p>
42	The exact value of cos-1 (0) is	A. π/2 B. -π/2 C. 3π D. π-π/6
43	Cos (cos4π/3)=	A. π/2 B. π/3 C. 2π/3 D. -π/3
44	The number of triplets (x, y, z) satisfying $\sin^{-1}x + \cos^{-1}y + \sin^{-1}z = 2\pi$ is	A. 0 B. 2 C. 1 D. Infinite
45	The principal value of sin-1√(3/2) is	A. -π/3 B. π/3 C. 2π/3 D. π/2
46	Question Image	
47	Question Image	
48	The domain of the principal tan function is	
49	Sin-1(-x)=	A. x B. -x C. -sin-1 x D. cos-1 x
50	If 2 $\tan^{1}(\cos x) = \tan^{-1}(\text{cosec}^{2}x)$, then x is equal to	A. π/ 3 B. π/ 2 C. π/ 6 D. π
51	Question Image	
52	Question Image	A. π/ 4 B. π/ 6 C. π/ 3 D. 2π/ 3
53	The domain of the principle sine function is	
54	The domain of the function y = sin x , is	A. -π/2≤ x≤ π/2 B. π/ ≤ x≤ π C. -2π ≤ x≤ 2π D. -1 ≤ x≤ 1
55	If $\cos^{-1}p + \cos^{-1}q + \cos^{-1}r = \pi$ then $p^2 + q^2 + r^2 + 2pqr$ is equal to	A. 3 B. 1 C. 2 D. -1
56	Question Image	
57	Question Image	
58	$\sin^{-1}[-1/2]$ = _____	
59	$x = \sin^{-1} 3$, then the value of sin x is	A. √(3/2) B. 3 C. Not possible D. -1
	In the interval 0< x < π, the sine is	A. Not a function B. Not defined

60	In the interval $0 \leq x \leq \pi$, the sine is	B. Not defined C. Infinity D. Not one-to-one function
61	The domain of the principle cos function is	
62	$\sin(\sin^{-1}(1/2))=$	A. 0 B. 2 C. ∞ D. 1/2
63	Question Image	
64	Question Image	A. Cos 2x = sin 4y B. Cos 4y = cos 2x C. Cos 3y = sin 4x D. None of these
65	Cos-1(x)=	A. cos x B. x C. tan-1(-x) D. Sec-1 (1/x)
66	If$\pi \leq x \leq 2\pi$, then cos-1 (cos x)=	A. cos x B. -x C. 1/x D. -x
67	Question Image	
68	Question Image	
69	Question Image	
70	Question Image	A. π / 4 B. π / 6 C. π / 3 D. 0
71	Sin -1 x=	A. sin(π/2-x) B. Sin-1 (π/2-x) C. π/2-cos-1x D. π/2 + cos-1x
72	Question Image	
73	Question Image	
74	Question Image	A. 16 / 7 B. 6 / 17 C. 7 / 16 D. None of these
75	$\cos^{-1}(\cos x) =$	A. x B. cos x C. x = 1/x D. cos⁻² x
76	Cos-1 (-x) =	A. -x B. 1/x C. tan-1 x D. π-cos-1 x
77	sn (2sin-10.8)	A. 0.56 B. 0.69 C. -0.16 D. 0.96
78	Question Image	A. 20 B. 10 C. 0 D. None of these
79	Question Image	A. x = 3 B. x = 1/5 C. x = 0 D. None of these
80	Question Image	
81	The principal value of $\sin^{-1}[-\sqrt{(\sqrt{3})}/2]$ is	A. 5π/3 B. -2π/3 C. -<img width="9" height="19" src="file:///C:/Users/Softsol/AppData/Local/Temp/msohtmlclip1/01/clip_image002.png" v:shapes="_x0000_i1025">π/3 <!--[endif]--><o:p></o:p> D. π/3

82	Question Image	A. 1 B. -1 C. 0 D. None of these
83	Question Image	A. 2 B. 5 C. 7 D. None of these
84	Question Image	
85	Question Image	
86	Question Image	
87	The principal value of $\sin^{-1}(-1/2)$	A. π/3 B. π/4 C. π/6 D. -π/6
88	$\tan^{-1}x > \cot^{-1}x$ holds for	A. x > 1 B. x < 1 C. x = 1 D. All values of x
89	$\sin^{-1} x =$	A. tan⁻¹ x B. Cosec⁻¹ x C. Cosec x D. cosec⁻¹(1/x)
90	Question Image	
91	Question Image	A. 0 B. 1 C. -1 D. None of these
92	Question Image	
93	Question Image	
94	Question Image	
95	The range of the principle cos function is	
96	Question Image	
97	Cos^{-1} 12/13 =	A. tan⁻¹ 3/5 B. cot⁻¹ 13/12 C. Sec⁻¹ 13/12 D. sin⁻¹ 5/13
98	The solution set of the equation $\tan^{-1}x - \cot^{-1}x = \cos^{-1}(2 - x)$ is	A. [0, 1] B. [-1, 1] C. [1, 3] D. None of these
99	Question Image	
100	Question Image	
101	The value of $\sin^{-1}$ 5/13 is equal to	A. Cos 5/13 B. Tan⁻¹ 5/12 C. cos⁻¹5/12 D. 2 cos⁻¹4/5