ECAT Mathematics Chapter 15 Inverse Trigonometric Functions Online Test

Sr	Questions	Answers Choice
1	Question Image	
2	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
3	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
4	$\sin^{-1}[-1/2]$ = _____	
5	Question Image	
6	Question Image	
7	Question Image	
8	Question Image	A. 2 B. 5 C. 7 D. None of these
9	Question Image	A. 1 B. 0 C. 3 D. -3
10	Question Image	A. π B. π / 2 C. π / 3 D. π / 4
11	Question Image	
12	Cos^{-1} 12/13 =	A. tan⁻¹ 3/5 B. cot⁻¹ 13/12 C. Sec⁻¹ 13/12 D. sin⁻¹ 5/13
13	If $\tan^{-1}3 + \tan^{-1}x = \tan^{-1}8$, then x=	A. 5 B. 1/5 C. 5/14 D. 14/5
14	Question Image	
15	Question Image	A. x = 3 B. x = 1/5 C. x = 0 D. None of these
16	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
17	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
18	$\text{Tan}^{-1}1/x$ = _____	A. sin x B. sec⁻¹X C. cot⁻¹X D. None of these
19	$\tan^{-1}x > \cot^{-1}x$ holds for	A. x > 1 B. x < 1 C. x = 1 D. All values of x

20	Question Image	
21	Question Image	
22	The domain of the principle sine function is	
23	Question Image	
24	Question Image	
25	Question Image	A. 16 / 7 B. 6 / 17 C. 7 / 16 D. None of these
26	The principal value of sin-1√(3/2) is	A. -π/3 B. π/3 C. 2π/3 D. π/2
27	Question Image	A. 1 B. -1 C. 0 D. None of these
28	Question Image	
29	Question Image	
30	Question Image	A. 1/3 B. 1 C. 3 D. None of these
31	Sin-1(-x)=	A. x B. -x C. -sin-1 x D. cos-1 x
32	Ifπ≤x≤2π, then cos-1 (cos x)=	A. cos x B. -x C. 1/x D. -x
33	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
34	Question Image	A. π / 3 B. π / 4 C. π / 6 D. 0
35	$\text{Sin}^{-1}(-x)=$	A. Cos⁻¹1/x B. - Sin⁻¹X C. Cot⁻¹X D. None of these
36	Question Image	
37	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
38	Question Image	A. π/ 4 B. π/ 6 C. π/ 3 D. 2π/ 3
39	Question Image	A. 0 B. 1 C. -1 D. None of these
40	The domain of the principle cos function is	

41	Question Image	
42	Cos-1 (-x) =	A. -x B. 1/x C. tan-1 x D. π-cos-1 x
43	Question Image	
44	In the interval 0≤ x ≤ π, the sine is	A. Not a function B. Not defined C. Infinity D. Not one-to-one function
45	Question Image	
46	Question Image	
47	Question Image	
48	$\sin[\cot^{-1}\{\cos(\tan^{-1}x)\}]=$	
49	$\sin^{-1} x =$	A. tan⁻¹ x B. Cosec⁻¹ x C. Cosec x D. cosec⁻¹(1/x)
50	Question Image	A. Cos 2x = sin 4y B. Cos 4y = cos 2x C. Cos 3y = sin 4x D. None of these
51	The Principal value of sin-1 (-1/1/2)	A. π/2<o:p></o:p> B. -π/2<o:p></o:p> C. π<o:p></o:p> D. -π<o:p></o:p>
52	The principal value of $\sin^{-1}$ (-1/2)	A. π/3 B. π/4 C. π/6 D. -π/6
53	The exact value of $\cos^{-1}$ (-1) + $\cos^{-1}$ (1) =	A. π B. -π C. π/2 D. π/3
54	Question Image	
55	Question Image	A. π / 4 B. π / 6 C. π / 3 D. 0
56	Question Image	
57	Question Image	A. 20 B. 10 C. 0 D. None of these
58	$\cos^{-1}(\cos x) =$	A. x B. cos x C. x = 1/x D. cos⁻² x
59	What is the value of cos-1(1/2)?	A. π/3 B. π/4 C. 3π/2 D. π/6
60	sin -1(sin2π/3) =	A. π/2 B. 2π/3 C. -3π/2 D. π/3
61	Question Image	
62	Question Image	
63	Question Image	
64	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>

		v:shapes= _x0000_i1025 >π/3 <![endif]--></o:p> D. π/3
65	$\tan^{-1}(1/4) + \tan^{-1}(2/9)$ 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
66	$Sec^{-1}x$ =	A. Cos⁻¹1/x B. cosec⁻¹1/x C. Cos⁻¹(-x) D. Tan⁻¹x
67	Cos-1(x)=	A. cos x B. x C. tan-1(-x) D. Sec-1 (1/x)
68	Cos (cos4π/3)=	A. π/2 B. π/3 C. 2π/3 D. -π/3
69	What is the value of cos (cos-1 2) ?	A. √2 B. 1/2 C. undefine D. 0
70	Question Image	
71	Question Image	
72	Question Image	
73	Question Image	A. 1 B. 7 C. 4 D. None of these
74	$\tan(\cot^{-1}x)$ is equal to	A. cot(tan⁻¹x) B. tan x C. secon x D. None of these
75	The range of the principle cot function is	
76	$\sin(\sin^{-1}(1/2))$=	A. 0 B. 2 C. ∞ D. 1/2
77	Question Image	
78	Sin -1 x=	A. sin(π/2-x) B. Sin-1 (π/2-x) C. π/2-cos-1x D. π/2 + cos-1x
79	Question Image	
80	Question Image	
81	Question Image	
82	Question Image	A. 1 B. -1 C. 0 D. None of these
83	Question Image	
84	Question Image	A. π / 3 B. π / 4 C. π / 2 D. π
85	Question Image	A. π/ 2 B. π/ 3 C. π/ 4 D. <span style="font-family: "Times New Roman"; font-size: 24px; color:

		D. <span style= font-family: "Times New Roman"; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 248);">π
86	Question Image	
87	The domain of the principal tan function is	
88	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
89	sn (2sin-10.8)	A. 0.56 B. 0.69 C. -0.16 D. 0.96
90	The exact degree value of the function sin-1(-√3/2) is	A. 70^o B. 50^o C. 90^o D. 60^o
91	The range of the principal sine function is	
92	Question Image	
93	The value of sin [arc cos (-1/2)] is	
94	Question Image	
95	The range of the principle cos function is	
96	The value of cos(cos-1 1/2) is	A. 1/2 B. √3/2 C. -1/2 D. 1/√2
97	$x = \sin^{-1} 3$, then the value of sin x is	A. √(3/2) B. 3 C. Not possible D. -1
98	Question Image	A. 0 B. -1 C. 1/2 D. 1
99	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
100	Question Image	
101	The exact value of cos-1 (0) is	A. π/2 B. -π/2 C. 3π D. π-π/6