

## ECAT Mathematics Chapter 15 Inverse Trigonometric Functions

Sr	Questions	Answers Choice
1	<input type="text" value="Question Image"/>	
2	$\sin^{-1} x =$	A. $\sin(\pi/2-x)$ B. $\sin^{-1}(\pi/2-x)$ C. $\pi/2 - \cos^{-1}x$ D. $\pi/2 + \cos^{-1}x$
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	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. $2 \cos^{-1} 24/25$
5	The domain of the principle cos function is	
6	$\sin(\sin^{-1}(1/2)) =$	A. 0 B. 2 C. $\infty$ D. $1/2$
7	<input type="text" value="Question Image"/>	
8	<input type="text" value="Question Image"/>	
9	$\cos^{-1}(x) =$	A. $\cos x$ B. $x$ C. $\tan^{-1}(-x)$ D. $\sec^{-1}(1/x)$
10	The exact value of $\cos^{-1}(-1) + \cos^{-1}(1) =$	A. $\pi$ B. $-\pi$ C. $\pi/2$ D. $\pi/3$
11	$\sin^{-1}[-1/2] =$ _____	
12	$\sin(2\sin^{-1}0.8)$	A. 0.56 B. 0.69 C. -0.16 D. 0.96
13	<input type="text" value="Question Image"/>	A. <span style="font-family: 'Times New Roman'; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 248);">"<math>\pi</math>"</span> B. <span style="font-family: 'Times New Roman'; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 248);">"<math>\pi</math>"</span> C. <span style="font-family: 'Times New Roman'; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 248);">"<math>\pi</math>"</span> 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);">"<math>\pi</math>"</span>
14	<input type="text" value="Question Image"/>	A. $\pi$ B. $\pi/2$ C. $\pi$

3</i>  
D. <i style="text-align: center;"> $\pi / 4$ </i>

15 Question Image

A. <i style="text-align: center;"> $\pi / 3$ </i>  
B. <i style="text-align: center;"> $\pi / 4$ </i>  
C. <i style="text-align: center;"> $\pi / 6$ </i>  
D. 0

16 Question Image

17 Question Image

18 Question Image

A. 1  
B. -1  
C. 0  
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 What is the value of  $\cos^{-1}(1/2)$ ?

A.  $\pi/3$   
B.  $\pi/4$   
C.  $3\pi/2$   
D.  $\pi/6$