

## Mathematics ECAT Pre Engineering Online Test

Sr	Questions	Answers Choice
1	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $y : x$ B. $x : y$ C. $-y : x$ D. $-x : y$
2	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 0 B. U C. $u/2$ D. $\log u$
3	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
4	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
5	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
6	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
7	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
8	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
9	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 1 B. $1/2$ C. 0 D. None
10	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $y/x$ B. $x/y$ C. $y/z$ D. None
11	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
12	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $xy$ B. $y$ C. 0 D. $x$
13	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 1 B. -1 C. $-1/2$ D. $1/2$
14	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 2 B. 1 C. 5 D. 0
15	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $1/8$ B. $1/2$ C. $1/4$ D. $1/6$
16	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $(1, 7/3)$ B. $(1, 7/5)$ C. $(1, 11/7)$ D. $(1, 3/5)$
17	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $R[0,4]$ B. $R(0,4)$ C. $(0,4)$ D. $[0,4]$
18	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Does not exist because f is unbounded B. Is not attained even though f is bounded C. Is equal to 1 D. Is equal to -1
19	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $3/4$ B. $r$ C. $r$

		<p>C. v</p> <p>D. None of these</p>
20	Question Image	<p>A. 0</p> <p>B. 1</p> <p>C. 8</p> <p>D. <span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&lt;i&gt;∞&lt;/i&gt;</span></p>
21	The area of circle of unit radius =	<p>A. 0</p> <p>B. 1</p> <p>C. 4</p> <p>D. <span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&gt;π&lt;/span&gt;</span></p>
22	Domain of $y = \csc x$ is	<p>A. All real numbers except <math>\pi/2 + n\pi</math></p> <p>B. R</p> <p>C. All negative integers</p> <p>D. None of these</p>
23	Graph of the question $x^2 + y^2 = 4$ is	<p>A. A circle</p> <p>B. An ellipse</p> <p>C. A parabola</p> <p>D. A square</p>
24	Question Image	<p>A. 1</p> <p>B. 0</p> <p>C. -2</p> <p>D. 3</p>
25	The range of inequality $x + 2 > 4$ is	<p>A. (-1, 2)</p> <p>B. (-2, 2)</p> <p>C. (1, <span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);'>&lt;i&gt;∞&lt;/i&gt;</span>)</p> <p>D. None</p>
26	A function $F(x)$ is called even if	<p>A. <math>F(x) = F(-x)</math></p> <p>B. <math>F(x) = F(-x)</math></p> <p>C. <math>F(x) = -F(x)</math></p> <p>D. <math>2F(x) = 0</math></p>
27	The domain of $f(x) = \log x$ is	<p>A. <math>[0, \text{&lt;span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);"&gt;&lt;i&gt;∞&lt;/i&gt;)</math></p> <p>B. <math>(0, \text{&lt;span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);"&gt;&lt;i&gt;∞&lt;/i&gt;)</math></p> <p>C. <math>[0, \text{&lt;span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);"&gt;&lt;i&gt;∞&lt;/i&gt;]</math></p> <p>D. <math>[\text{&lt;span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);"&gt;&lt;i&gt;∞&lt;/i&gt;, \text{&lt;span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);"&gt;&lt;i&gt;∞&lt;/i&gt;}]</math></p>
28	Question Image	
29	Which is an explicit function	<p>A. <math>y = x^2 + 2x - 1</math></p> <p>B. <math>x^2 + xy + y^2 = 2</math></p> <p>C. <math>x^2 + y^2 = xy + 2</math></p>

D. All are

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Which is not included in the domain of  $\cos^{-1}x$

A. 0

B. 1

C. -1

D. 2