

## ECAT (Pre-Eng) Mathematics Chapter 12 Trigonometric Functions and Identities

Sr	Questions	Answers Choice
1	If $x > 0$ and $y < 0$ , then $\cos\theta$	A. Positive B. negative C. zero D. infinity
2	The value of $7\pi/9$ in terms of degree is	A. $140^\circ$ B. $130^\circ$ C. $120^\circ$ D. $45^\circ$
3	The area of a sector of a circular region of radius $r$ is	A. $2\pi r$ B. $\pi r^2$ C. $\frac{1}{2}\pi r^2$ D. $\pi/6$
4	The circle with area $60\text{ cm}^2$ has an arc $8\text{ cm}$ long. The angle that is subtended at the centre of the circle by the arc is	A. 1.83 radians B. 2.1 radians C. 1.05 radians D. 1.25 radians
5	the value of $25\pi/36$ in degrees is	A. $120^\circ$ B. $125^\circ$ C. $60^\circ$ D. $115^\circ$
6	If $\sin\theta = 12/13$ , and $\sin\theta > 0$ , then $\tan\theta =$	A. $2/5$ B. $12/13$ C. $13/5$ D. $12/5$
7	radian is the measure of the angle subtended at the centre of the circle by an arc, whose length is equal to the	A. radius of the circle B. circumference C. arc length D. tangent of the circle E. none of these
8	The circular measure of the angle between the hands of a watch of 4 O'clock is	A. $\pi/2$ B. $\pi/4$ C. $2\pi/3$ D. $\pi/6$
9	If $l = 1.5\text{ cm}$ and $r = 2.5\text{ cm}$ , then $\theta =$	A. .3 radians B. .20 radians C. .5 radians D. .6 radians
10	The value of $289^\circ$ in radians is	A. 4.05 B. 3.02 C. $\frac{16\pi}{9}$ D. 5.04

11	The value of $63^\circ$ in term of $\pi$ is	<p>A. <math>\frac{5\pi}{2}</math></p> <p>B. <math>\frac{5\pi}{3}</math></p> <p>C. <math>\frac{7\pi}{20}</math></p> <p>D. <math>\frac{7\pi}{3}</math></p>
12	$154^\circ 20' =$	<p>A. <math>\frac{2550}{34401}\pi</math></p> <p>B. <math>\frac{27721}{22400}\pi</math></p> <p>C. <math>\frac{2521}{32400}\pi</math></p> <p>D. <math>\frac{4125}{32400}\pi</math></p>
13	The value of $7\pi/9$ in terms of degrees is	<p>A. <math>150^\circ</math></p> <p>B. <math>130^\circ</math></p> <p>C. <math>135^\circ</math></p> <p>D. <math>140^\circ</math></p>
14	$56^\circ = \dots\dots\dots$ radians	<p>A. 1.25</p> <p>B. 2.56</p> <p>C. 95</p> <p>D. 0.98</p>
15	$3/\pi = \dots\dots\dots$	<p>A. <math>54.71^\circ</math></p> <p>B. <math>21^\circ</math></p> <p>C. <math>51^\circ</math></p> <p>D. <math>29^\circ</math></p>
16	$21.256^\circ$	<p>A. <math>21^\circ 15' 21''</math></p> <p>B. <math>21^\circ 20' 56''</math></p> <p>C. <math>21^\circ 25' 1''</math></p> <p>D. <math>21^\circ 25' 6''</math></p>
17	If $\sin\theta = 12/13$ , and $\sin\theta > 0$ , then $\tan\theta =$	<p>A. <math>2/5</math></p> <p>B. <math>12/13</math></p> <p>C. <math>13/5</math></p> <p>D. <math>12/5</math></p>
18	$56^\circ = \dots\dots\dots$ radians	<p>A. 1.25</p> <p>B. 2.56</p> <p>C. 95</p> <p>D. 0.98</p>
19	The value of $300^\circ$ in term of $\pi$ is	<p>A. <math>\frac{5\pi}{3}</math></p> <p>B. <math>\frac{2\pi}{3}</math></p> <p>C. <math>\frac{5\pi}{2}</math></p> <p>D. <math>5\pi</math></p>
20	The value of $150^\circ$ in term of $\pi$ is	<p>A. <math>\frac{2\pi}{5}</math></p> <p>B. <math>\frac{5\pi}{2}</math></p> <p>C. <math>\frac{3\pi}{2}</math></p> <p>D. <math>\frac{2550}{32401}\pi</math></p>