

## ECAT (Pre-Eng) Mathematics Chapter 14 Application of Trigonometry

Sr	Questions	Answers Choice
1	The angle of elevation of a tower from a point A due south of it is $x$ and from a point B due east of A is $y$ . If $AB = 1$ , then the height $h$ of the tower is given by	
2	<a href="#">Question Image</a>	
3	In triangle ABC, in which $b=95$ , $c=34$ , $a = 52$ then the value of $a =$	A. 18 cm B. 18.027 cm C. 20.7 cm D. 19 cm
4	For any equilateral $r : R : \eta : r_1 : r_2 : r_3 =$	A. 1:2:3:4:5 B. 1:2:3:3:3 C. 1:2:4:4:4 D. 2:1 :2 :2 :2
5	A circle passing through the vertices of any triangle is called _____	A. In circle B. Circum circle C. Escribed circle D. None of these
6	The angle of depression of a point A on the ground from the top of the tower is $30^\circ$ , then the angle of elevation of the top of the tower at the point A is	A. $60^\circ$ B. $40^\circ$ C. $41^\circ$ D. $30^\circ$
7	<a href="#">Question Image</a>	A. The law of cosines B. The law of sines C. The law of tangents D. None of these
8	<a href="#">Question Image</a>	
9	In-radius is denoted by	A. $r$ B. $\eta$ C. $r_2$ D. $R$
10	The angle of depression of the point at a distance 70 meters from the foot of the tower from the top of the tower is $45^\circ$ . The height of the tower is	A. 37m B. 97m C. 101m D. 70m
11	<a href="#">Question Image</a>	
12	Area of inscribed circle is	A. $\pi R^2$ B. $\pi \eta^2$ C. $\pi r_2^2$ D. $\pi r^2$
13	A circle drawn inside a triangle and touching its sides is called	A. In-circle B. Circum circle C. Escribed circle D. None of these
14	A circle which touches one side of a triangle externally and the other two sides produced is called _____	A. In-circle B. Circum circle C. Escribed circle D. None of these
15	A circle which touches one side of a triangle externally and the other two sides produced is called	A. In-circle B. Circumcircle C. e-circle D. Point circle

A.  $\sin^{-1} \frac{1}{2}$   
 B.  $\tan^{-1} \frac{1}{2}$   
 C.  $\cos^{-1} \frac{1}{2}$   
 D.  $\cot^{-1} \frac{1}{2}$

16 If  $\theta = 60^\circ$  then

$\cot(\theta) = \cot 30^\circ$

C.  $\cot(\theta) = \cot 30^\circ$

D.  $\sec(\theta) = 4$

17 If five triangles are constructed having sides of the lengths indicated below, the triangle that will NOT be a right triangle is

A. 8, 15, 17

B. 3, 4, 5

C. 12, 15, 18

D. 5, 12, 13

18 Question Image

19 A triangle has six

A. side

B. elements

C. angle

D. tangents

20 Question Image