

Mathematics ECAT Pre Engineering Chapter 14 Application of Trigonometry Online Test

Sr	Questions	Answers Choice
1	The angle of depression of a point A on the ground from the top of the tower is 30° , then the angle of elevation of the top of the tower at the point A is	A. 60° B. 40° C. 41° D. 30°
2	Question Image	A. The law of sines B. The law of tangents C. The law of cosines D. None of these
3	If $\theta = 60^\circ$ then	A. $\sin \theta = \frac{1}{2}$ B. $\tan \theta = \cot 30^\circ$ C. $\sec \theta = 4$ D. $\sec \theta = \frac{1}{4}$
4	Question Image	
5	AB is a vertical pole and C is its middle point. The end A is on the level ground and P is any point on the level ground other than A. the portion CB subtends an angle β at P. If $AP : AB = 2 : 1$ then $\beta =$	
6	Question Image	A. The law of sines B. The law of cosines C. The law of tangents D. None of these
7	$x = r \cos \theta, y = 1$ are the parametric equation of	A. Circle B. Hyperbola C. Ellipse D. Parabola
8	A tower subtends an angle of 30° at a point distant d from the foot of the tower and on the same level as the foot of the tower. At a second point, h vertically above the first, the angle of depression of the foot of the tower, is 60° . The height of the tower is	A. $\frac{h}{3}$ B. $\frac{h}{3d}$ C. $3h$ D. $3h / d$
9	PQ is a post of given height a, and AB is a tower at some distance; α and β are the angles of elevation of B, the top of the tower, at P and Q respectively. The height of the tower and its distance from the post are	
10	Question Image	A. 30° B. 60° C. 45° D. None of these
11	The upper $\frac{3}{4}$ the portion of a vertical pole subtends an angle $\tan^{-1} \frac{3}{5}$ at a point in the horizontal plane through its foot and at a distance 40 m from the foot. A possible height of the pole is	A. 20 m B. 40 m C. 60 m

12	Area of $\triangle ABC =$	A. $\frac{1}{2} ab \sin \alpha$ B. $\frac{1}{2} ab \sin \gamma$ C. $\frac{1}{2} ac \sin \gamma$ D. $\frac{1}{2} ac \sin \beta$
13	Question Image	
14	An observer on the top of a cliff 200 m above the sea level, observes the angles of depression of two ships on opposite sides of the cliff to be 45° and 30° , respectively. The distance between the ships if the line joining them points to the base of cliff is	
15	The law of sines is	
16	The angle of elevation of the top of a tree from a point 17 meters from its foot is 42° . The height of the tree is	A. 12m B. 21m C. 17m D. 15m
17	If $\triangle ABC$ is right, law of cosine reduce to	A. Law of sine B. Law of tangent C. Pythagorean theorem D. Hero's formula
18	If sides of $\triangle ABC$ are 16, 20, and 33, then the value of the greatest angle is	A. $150^\circ 20'$ B. $132^\circ 35'$ C. $101^\circ 25'$ D. $160^\circ 50'$
19	In triangle ABC, in which $b=95$, $c=34$, $A=52^\circ$ then the value of $a=$	A. 18 cm B. 18.027 cm C. 20.7 cm D. 19 cm
20	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° . The height of the tower is	A. 37m B. 97m C. 101m D. 70m