

ECAT Mathematics Chapter 14 Application of Trigonometry Online Test

Sr	Questions	Answers Choice
1	Question Image	
2	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	
3	Question Image	A. The law of sines B. The law of cosines C. The law of tangents D. None of these
4	A man of height 6 ft observes the top of a tower and the foot of the tower at angles of 45° and 30° of elevation and depression respectively. The height of the tower is	
5	The law of sines is	
6	If the elevation of the sun is 30° , then the length of the shadow cast by a tower of 150 ft height is	
7	A triangle has six	A. side B. elements C. angle D. tangents
8	The law of tangents is _____	
9	Question Image	A. 30° B. 60° C. 45° D. None of these
10	If $\cos \theta = 0$, then $\theta =$ _____	A. $n\pi$ B. $(2n + 1)\pi$ C. $(2n - 1)\pi$ D. $(4n + 1)\pi$
11	The law of sines can be used to solve oblique triangle when following information is given:	A. Two angles and a side B. Two sides and an angle opposite one of the given sides C. Two sides and the angle between two sides D. Option a and b
12	A person standing on the bank of a river observes that the angle of elevation of the top of a tree on the opposite bank of the river is 60° and when he retires 40 meters away from the tree the angle of elevation becomes 30° . The breadth of the river is	A. 40 m B. 30 m C. 20 m D. 60 m
13	e-radii are denoted by	A. η B. r_2 C. r_3 D. All of these
14	Question Image	A. The law of sines B. The law of cosines C. The law of tangents

D. None of these

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Question Image

16

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

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If $\triangle ABC$ is right, law of cosine reduce to

- A. Law of sine
- B. Law of tangent
- C. Phthagoruous theorem
- D. Hero's formula

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The longer side of a parallelogram is 10 cm and the shorter is 6 cm. If the longer diagonal makes an angles 30° with the longer side, the length of the longer diagonal is

19

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 vertical pole is

- A. 20 m
- B. 40 m
- C. 60 m
- D. 80 m

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If sided of $\triangle ABC$ are 16,20,and 33, then the value of the greatest angle to

- A. $150^\circ 20'$
- B. $132^\circ 35'$
- C. $101^\circ 25'$
- D. $160^\circ 50'$