

## ECAT Mathematics Chapter 14 Application of Trigonometry

Sr	Questions	Answers Choice
1	Question Image	A. The law of sines B. The law of cosines <b>C. The law of tangents</b> D. None of these
2	A vertical pole is 8m high and the length of its shadow is 6m. The angle of elevation of the sun of the moment is	A. $57^\circ$ B. $-48^\circ$ C. $27^\circ$ D. $53^\circ$
3	Question Image	A. The law of sines B. The law of cosines C. The law of tangents D. None of these
4	The law of tangents is _____	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 sided <b>D. Option a and b</b>
5	The law of sines can be used to solve oblique triangle when following information is given:	A. $150^\circ 20'$ B. $132^\circ 35'$ C. $101^\circ 25'$ D. $160^\circ 50'$
6	If sided of $\triangle ABC$ are 16,20, and 33, then the value of the greatests angle to	
7	Question Image	
8	Area of inscribed circle is	A. $\pi R^2$ B. $\pi \eta^2$ C. $\pi r^2$ <b>D. <math>\pi r^2</math></b>
9	Question Image	
10	An airplane flying at height of 300 meters above the ground passes vertically above another plane at an instant when the angle of elevation of the two planes from the same point on the ground are $60^\circ$ and $45^\circ$ respectively. Then the height of the lower plane from the ground is (in meters).	
11	The law of sines can be used to solve	A. Right angle triangle B. Isosceles triangle <b>C. oblique triangle</b> D. hexagon
12	If the elevation of the sun is $30^\circ$ , then the length of the shadow cast by a tower of 150 ft height is	
13	The angle of elevation of the top of a tree from a point 17 meters from is foot is $42^\circ$ . The height of the tree is	A. 12m B. 21m C. 17m <b>D. 15m</b>
14	PQ is a post of given height $a$ , and AB is a tower at some distance; $\alpha$ and $\beta$ 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	
15	A circle which touches one side of a triangle externally and the other two sides produced is called _____	A. In-circle B. Circum circle <b>C. Escribed circle</b> D. None of these
16	Question Image	
17	The quadratic equation $8 \sec 2\theta - 6 \sec \theta + 1 = 0$ has	A. Infinitely many roots B. Exactly two roots C. Exactly four roots D. No roots
18	Question Image	

19 Question Image

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

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