

ECAT Mathematics Chapter 14 Application of Trigonometry

| Sr | Questions | Answers Choice |
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| 1 | 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 |
| 2 | The longer side of a parallelogram is 10 cm and the shorter is 6 cm. If the longer diagonal makes an angle 30° with the longer side, the length of the longer diagonal is | |
| 3 | The process of finding the unknown elements in triangle is called the | A. solution of the triangle B. Mean difference C. Engineering distance D. angle of depression |
| 4 | 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 |
| 5 | At a point 15 meters away from the base of a 15 meters high house, the angle of elevation of the top is | A. 90° B. 60° C. 30° D. 45° |
| 6 | The angle of depression of a point situated at a distance of 70 meters from the base of a tower is 45° . The height of the tower is | A. 70 m B. 85 m C. 35 m D. None of these |
| 7 | If you are looking at a high point from the ground, then the angle formed is | A. Angle of elevation B. Angle of depression C. Right angle D. Horizon |
| 8 | Question Image | |
| 9 | If $\theta = 60^\circ$ then | A. $\sin \theta = \frac{1}{2}$ B. $\tan \theta = \cot 30^\circ$ C. $\sec \theta = \frac{1}{4}$ D. $\sec \theta = 4$ |
| 10 | Question Image | |
| 11 | The law of tangents is _____ | |
| 12 | Area of inscribed circle is | A. πR^2 B. πr^2 C. πr^2 D. πR^2 |

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| 13 | The angle of elevation of the tops of two towers at the middle point of the line joining the foots of the tower are 60° and 30° respectively. The the ratio of the heghts of the tower is | B. 3 : 1 C. 1 : 2 D. 1 : 3 |
| 14 | 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 |
| 15 | Question Image | |
| 16 | 120° degrees are equal to how many radians? | |
| 17 | A person standing on the bank of a river observes that the angle subtended by a tree of the opposite bank is 60° , when he retreats 40 m from the bank, he finds the angle to be 30° . The height of the tree and the breadth of the river are | |
| 18 | If the flag-staff 6 meters high placed on the top of a tower. Makes the shadow $2\sqrt{3}$ m on the ground, then the angle of elevation of the sun is | A. 30° B. 35° C. 45° D. 60° |
| 19 | Question Image | |
| 20 | Question Image | A. The law of sines B. The law of consines C. The law of tangents D. None of these |