

ECAT Mathematics Chapter 14 Application of Trigonometry

| Sr | Questions | Answers Choice |
|----|---|--|
| 1 | If $\cos \theta = 0$, then $\theta =$ _____ | <p>A. $n\pi$</p> <p>B. $(2n + 1)\pi$</p> <p>C. $(2n - 1)\pi$</p> <p>D. $(4n + 1)\pi$</p> |
| 2 | Question Image | |
| 3 | 120° degrees are equal to how many radians? | |
| 4 | 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 | <p>A. 12m</p> <p>B. 21m</p> <p>C. 17m</p> <p>D. 15m</p> |
| 5 | Question Image | <p>A. The law of sines</p> <p>B. The law of cosines</p> <p>C. The law of tangents</p> <p>D. None of these</p> |
| 6 | The law of sines is | |
| 7 | Question Image | <p>A. 30°</p> <p>B. 60°</p> <p>C. 45°</p> <p>D. None of these</p> |
| 8 | Area of inscribed circle is | <p>A. πR^2</p> <p>B. πr^2</p> <p>C. πr^2</p> <p>D. πr^2</p> |
| 9 | 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 | <p>A. 30°</p> <p>B. 35°</p> <p>C. 45°</p> <p>D. 60°</p> |
| 10 | Question Image | |
| 11 | The angles of elevation of the top of a tower at the top and the foot of a pole of height 10 m are 30° and 60° respectively. The height of the tower is | <p>A. 10 m</p> <p>B. 15 m</p> <p>C. 20 m</p> <p>D. None of these</p> |
| 12 | Question Image | |
| 13 | If you are looking a high point from the ground, then the angle formed is | <p>A. Angle of elevation</p> <p>B. Angle of depression</p> <p>C. Right angle</p> <p>D. Horizon</p> |
| 14 | Question Image | |
| 15 | If $\triangle ABC$ is right, law of cosine reduce to | <p>A. Law of sine</p> <p>B. Law of tangent</p> |

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

- C. Phythogorous theorem
- D. Hero's formula

16 Question Image

17 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

18 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

19 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

20 E-radius corresponding to $\angle C$ is