# ECAT Mathematics Chapter 14 Application of Trigonometry

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | A triangle which is not right is called an _____ triangle | A. Acute<br>B. Obtuse<br>C. Oblique<br>D. None of these |
| 2 | If $\cos\theta = 0$, then $\theta =$ _____ | A. $n\pi/2$<br>B. $(2n + 1)\pi/2$<br>C. $(2n - 1)\pi/2$<br>D. $(4n + 1)\pi/2$ |
| 3 | If $\triangle ABC$ is right, law of cosine reduce to | A. Law of sine<br>B. Law of tangent<br>C. Phthogorous theorem<br>D. Hero's formula |
| 4 | The law of sines can be used to solve oblique triangle when following information is given: | A. Two angles and a side<br>B. Two sides and an angle opposite one of the given sides<br>C. Two sides and the angle between two sided<br>D. Option a and b |
| 5 | In ladder leaning against a vertical well makes an angle of 24° with the wall, Its foot is 5m from the wall, its length is | A. 5.47m<br>B. 2m<br>C. 7m<br>D. 6.29m |
| 6 | Question Image | |
| 7 | E-radius corresponding to < C is | |
| 8 | Question Image | |
| 9 | Question Image | |
| 10 | Question Image | |
| 11 | 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 firs, the angle of depression of the foot of the tower, is 60°. The height of the tower is | A. h/3<br>B. h/3d<br>C. 3h<br>D. 3h / d |
| 12 | When the angle between the ground and the sun is 30°,flag pole costss a shadow of 40 mg long. the height of the top of the flag is | A. 25m<br>B. 23m<br>C. 12m<br>D. 29m |
| 13 | 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° and 45° respectively. Then the height of the lower plane from the ground is (in meters). | |
| 14 | Question Image | |

| 15 | Question Image | |
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| 16 | A circle passing through the vertices of any triangle is called _____ | A. In circle<br>B. Circum circle<br>C. Escribed circle<br>D. None of these |
| 17 | A circle drawn inside a triangle and touching its sides is called _____ ; | A. Circumcirle<br>B. Incircle<br>C. Escribed circle<br>D. unit circle |
| 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 | 120° degrees are equal to how many radians? | |
| 20 | The process of finding the unknown elements in triangle is called the | A. solution of the triangle<br>B. Mean differnece<br>C. Engineering distance<br>D. angle of depressin |