

ECAT Mathematics Chapter 16 Solution of Trigonometric Functions Online Test

| Sr | Questions | Answers Choice |
|----|--|--|
| 1 | The number of points of intersection of two curves $y = 2 \sin x$ and $y = 5x^2 + 2x + 3$ is | A. 0 B. 1 C. 2 D. None of these |
| 2 | Question Image | A. 1 B. 2 C. 3 D. None of these |
| 3 | Question Image | |
| 4 | The general value of θ satisfying the equation $2 \sin^2 \theta - 3 \sin \theta - 2 = 0$ is | |
| 5 | Question Image | A. From an empty set B. 1 C. 2 D. >2 |
| 6 | Question Image | A. 7 B. 5 C. 6 D. None of these |
| 7 | If $\sin(\pi \cos \theta) = \cos(\pi \sin \theta)$, then which of the following is correct? | |
| 8 | The solution of the equation $\cos^2 \theta + \sin \theta + 1 = 0$ lies in the interval | |
| 9 | One root of the equation $\cos x - x + 1/2 = 0$ lies in the interval | |
| 10 | General solution of $\tan 5\theta = \cot 2\theta$ is | |
| 11 | The smallest positive root of the equation $\tan x - x = 0$ lies on | |
| 12 | Question Image | A. A finite non-empty set B. Null set C. Both a and b D. None of these |
| 13 | The number of solution of the equation $\tan x + \sec x = 2 \cos x$ lying in the interval $[0, 2\pi]$ is | A. 0 B. 1 C. 2 D. 3 |
| 14 | If $\sin 6\theta + \sin 4\theta + \sin 2\theta =$ | |
| 15 | The number of values of x in the interval $[0, 5\pi]$ satisfying the equation $3 \sin^2 x - 7 \sin x + 2 = 0$ is | A. 0 B. 5 C. 6 D. 10 |
| 16 | Question Image | |
| 17 | Question Image | |
| 18 | $\cot \theta = \sin 2\theta$ if $\theta =$ | |
| 19 | $\cot \theta = \sin 2\theta$ if $\theta =$ | |
| 20 | Question Image | |
| 21 | Question Image | |
| 22 | Question Image | A. No solution B. One real solution C. More than one real solution D. None of these |

- 23 If $4 \sin^2 \theta = 1$, then values of θ are
A. 30°
B. **45°**
C. 60°
D. 75°
- 24 Question Image
- 25 The general solution of $\tan 3x = 1$ is
- 26 If $\sin A = \sin B$, $\cos A = \cos B$, then the value of A in terms of B is
- 27 Question Image
- 28 By expressing $\cos 113^\circ$ in terms of trigonometrical ratios, answer will be
A. $\cos 76^\circ = -0.7093$
B. $\cos 65^\circ = -0.4258$
C. **$\cos 67^\circ = -0.3907$**
D. $\cos 62^\circ = -0.8520$
- 29 By expressing $\sin 125^\circ$ in terms of trigonometrical ratios, answer will be
A. $\sin 65^\circ = 0.9128$
B. **$\sin 55^\circ = 0.8192$**
C. $\sin 70^\circ = 0.5384$
D. $\sin 72^\circ = 0.1982$
- 30 Sine rule for a triangle states that
A. $a/\sin A = b/\sin B = c/\sin C$
B. **$\sin A/a = \sin B/b = \sin C/c$**
C. $a/\sin A + b/\sin B + c/\sin C$
D. $2a/\sin A = 2b/\sin B = 2c/\sin C$