

Mathematics ECAT Pre Engineering Chapter 16 Solution of Trigonometric Equations Online Test

Sr	Questions	Answers Choice
1	Question Image	D. none of these
2	The solution of the equation $3 \tan^2 x = 1$ is _____	D. none of these
3	The solution set of the equation $4 \cos^2 x - 3 + 0$ is	D. none of these
4	The solution set of the equation $1 + \cos x = 0$ is _____	D. none of these
5	Question Image	D. none of these
6	Question Image	D. none of these
7	Question Image	D. none of these
8	Question Image	
9	Question Image	
10	Question Image	
11	Question Image	D. none of these
12	Question Image	A. I andII andI quadrants B. II andI andI andI quadrants C. II andI andI andI quadrants

13

Question Image

Roman"; font-size: 18px;
background-color: rgb(255, 255,
248);>I and<span
style="color: rgb(34, 34, 34); font-
family: "Times New
Roman"; font-size: 18px;
background-color: rgb(255, 255,
248);>I<span style="color:
rgb(34, 34, 34); font-family:
"Times New Roman"; font-
size: 18px; background-color:
rgb(255, 255, 248);>V<span
style="color: rgb(34, 34, 34); font-
family: "Times New
Roman"; font-size: 18px;
background-color: rgb(255, 255,
248);>quadrants
D. none of these

A. <div><span style="color: rgb(34,
34, 34); font-family: "Times New
Roman"; font-size: 18px;
background-color: rgb(255, 255,
248);>I and<span
style="background-color: rgb(255,
255, 248); color: rgb(34, 34, 34);
font-family: "Times New
Roman"; font-size:
18px;">I<span
style="background-color: rgb(255,
255, 248); color: rgb(34, 34, 34);
font-family: "Times New
Roman"; font-size: 18px;">I
quadrants</div>
B. <span style="color: rgb(34, 34,
34); font-family: "Times New
Roman"; font-size: 18px;
background-color: rgb(255, 255,
248);><span style="color:
rgb(34, 34, 34); font-family:
"Times New Roman"; font-
size: 18px; background-color:
rgb(255, 255, 248);>I and
<span style="color: rgb(34, 34, 34);
font-family: "Times New
Roman"; font-size: 18px;
background-color: rgb(255, 255,
248);>I<span style="color:
rgb(34, 34, 34); font-family:
"Times New Roman"; font-
size: 18px; background-color:
rgb(255, 255, 248);>I quadrants
C. <span style="color: rgb(34, 34,
34); font-family: "Times New
Roman"; font-size: 18px;
background-color: rgb(255, 255,
248);><span style="color:
rgb(34, 34, 34); font-family:
"Times New Roman"; font-
size: 18px; background-color:
rgb(255, 255, 248);>I and
<span style="color: rgb(34, 34, 34);
font-family: "Times New
Roman"; font-size: 18px;
background-color: rgb(255, 255,
248);><span style="color:
rgb(34, 34, 34); font-family:
"Times New Roman"; font-
size: 18px; background-color:
rgb(255, 255, 248);>V<span
style="color: rgb(34, 34, 34); font-
family: "Times New
Roman"; font-size: 18px;
background-color: rgb(255, 255,
248);>quadrants
D. none of these

14

The solution set of $\sin x + \cos x = 0$ is

A. one element

B. two elements

C. three elements

D. Infinite elements

15

The solution set of trigonometric equation contains

16

General solution of $1 + \cos x = 0$ is

- 17 Question Image D. all
- 18 Question Image
- 19 Question Image
- 20 Question Image
- 21 Question Image D. both a & c
- 22 Question Image
- 23 Question Image A. trigonometric equation
B. conditional equation
C. identity
D. None
-
- 24 For Cosine Rule of any triangle ABC, b^2 is equal to
A. $a^2 - c^2 - 2ab \cos A$
B. $a^2 + c^2 - 2ac \cos B$
C. $a^2 + c^2 + 2ac \cos B$
D. $a^2 + b^2 - 2bc \cos A$
-
- 25 In a triangle ABC, if angle A = 72° , angle B = 48° and c = 9 cm then C is
A. 69°
B. 66°
C. 60°
D. 63°
-
- 26 Considering Cosine Rule of any triangle ABC, possible measures of angle A includes
A. Angle A is obtuse
B. Angle A is acute
C. Angle A is right-angle
D. All of above
-
- 27 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. $2a/\sin A = 2b/\sin B = 2c/\sin C$
-
- 28 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. $\sin 125^\circ = 0.8192$

- 0.95em;">sin 70° = 0.5384
- D. sin 72° = 0.1982
-
- 29 By expressing cos 113° in terms of trigonometrical ratios, answer will be
- A. cos 76° = -0.7093
B. cos 65° = -0.4258
C. cos 67° = -0.3907
D. cos 62° = -0.8520
-
- 30 Question Image
- 31 If Sin A = sin B, cos A = cos B, then the value of A in terms of B is
- 32 The general solution of $\tan 3x = 1$ is
- A. 30°
B. 45°
C. 60°
D. 75°
-
- 33 Question Image
- 34 If $4 \sin^2 \theta = 1$, then values of θ are
- A. No solution
B. One real solution
C. More than one real solution
D. None of these
-
- 35 Question Image
- 36 Question Image
- 37 Question Image
- 38 $\cot \theta = \sin 2\theta$ if $\theta =$
- 39 $\cot \theta = \sin 2\theta$ if $\theta =$
- 40 Question Image
- 41 Question Image
- A. 0
B. 5
C. 6
D. 10
-
- 42 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
-
- 43 If $\sin 6\theta + \sin 4\theta + \sin 2\theta$, then $\theta =$
- A. 0
B. 1
C. 2
D. 3
-
- 44 The number of solution of the equation $\tan x + \sec x = 2 \cos x$ lying in the interval $[0, 2\pi]$ is
- A. A finite non-empty set
B. Null set
C. Both a and b
D. None of these
-
- 45 Question Image
- 46 The smallest positive root of the equation $\tan x - x = 0$ lies on
- 47 General solution of $\tan 5\theta = \cot 2\theta$ is
- 48 One root of the equation $\cos x - x + 1/2 = 0$ lies in the interval
- 49 The solution of the equation $\cos^2 \theta + \sin \theta + 1 = 0$ lies in the interval
- 50 If $\sin(\pi \cos \theta) = \cos(\pi \sin \theta)$, then which of the following is correct?
- A. 7
B. 5
C. 6
D. None of these
-
- 51 Question Image
- 52 Question Image
- A. From an empty set
B. 1
C. 2
D. >2
-
- 53 The general value of θ satisfying the equation $2 \sin^2 \theta - 3 \sin \theta - 2 = 0$ is

54 Question Image

- A. 1
B. 2
C. 3
D. None of these

55 Question Image

- A. 0
B. 1
C. 2
D. None of these

56 The number of points of intersection of two curves $y = 2 \sin x$ and $y = 5x^2 + 2x + 3$ is