

- 28) $\cos[\sin^{-1}x] =$ _____ a. x b. $2x$ \checkmark c. $\sqrt{1-x^2}$ d. $\sqrt{1+x^2}$
- 29) $\sin^{-1}(-x) =$ _____ a. $\sin^{-1}x$ b. $\cos^{-1}x$ c. $-\cos^{-1}x$ \checkmark d. $-\sin^{-1}x$
- 30) $\tan^{-1}(-x) =$ _____ \checkmark a. $-\tan^{-1}x$ b. $\tan^{-1}x$ c. $\cot^{-1}x$ d. $-\cot^{-1}x$

CHAPTER: 14

- 1) Equation with atleast one trigonometric variable is called _____ Equations.
a. Exponential b. Radical c. Logarithmic \checkmark d. Trigonometric
- 2) A trigonometric Equation has _____ Solutions.
a. One b. Two c. Three \checkmark d. Infinite
- 3) If $\sin x = \frac{1}{2}$ then $x =$ _____ where $x \in [0, 2\pi]$.
a. $\frac{\pi}{4}, \frac{3\pi}{4}$ b. $\frac{\pi}{3}, \frac{5\pi}{3}$ \checkmark c. $\frac{\pi}{6}, \frac{5\pi}{6}$ d. $\frac{\pi}{6}, -\frac{\pi}{6}$
- 4) Solution set of $1 + \cos x = 0$ is _____ for $n \in \mathbb{Z}$
a. $\{n\pi\}$ b. $\{(2n+1)\pi/2\}$ \checkmark c. $\{(2n+1)\pi\}$ d. $\{n\pi/2\}$.
- 5) Solution set of $\cos x = 2$ is _____.
a. $\{n\pi\}$ \checkmark b. \emptyset c. $\{(2n+1)\pi/2\}$ d. $\{(2n+1)\pi\}$.
- 6) Solution set of $2\cos x + \sqrt{3} = 0$ is _____.
a. \emptyset b. Finite \checkmark c. Infinite d. None
- 7) If $\tan \theta = \frac{1}{\sqrt{3}}$ then θ lying in 3rd Quadrant is _____.
a. $\frac{7\pi}{3}$ \checkmark b. $\frac{7\pi}{6}$ c. $\frac{5\pi}{6}$ d. $\frac{5\pi}{3}$
- 8) Solution of $\tan 2\theta = 1$ in $[0, \pi]$ is _____.
a. $\pi/4$ \checkmark b. $\pi/8$ c. $\pi/2$ d. $\frac{2\pi}{3}$
- 9) If $\sin 2x = \frac{\sqrt{3}}{2}$ then x is _____.
a. $\frac{\pi}{3}, \frac{5\pi}{3}$ \checkmark b. $\frac{\pi}{6}, \frac{\pi}{3}$ c. $\frac{\pi}{3}, \frac{2\pi}{3}$ d. $-\frac{\pi}{4}, \frac{5\pi}{4}$
- 10) Solution of $\sin x = 0$ is _____.
a. 0 b. π \checkmark c. $0, \pi$ d. None
- 11) Solution set of $\sin^2 x + \cos^2 x = 0$ is _____.
a. \mathbb{R} \checkmark b. \emptyset c. $\{0, \pi\}$ d. $\{0, \pi/2\}$
- 12) $\tan x = \frac{1}{\sqrt{3}}$ then solution set is _____ for $n \in \mathbb{Z}$
a. $\{\frac{\pi}{6} + n\pi\}$ \checkmark b. $\{\frac{\pi}{4} + n\pi\}$ c. $\{\frac{\pi}{3} + n\pi\}$ d. $\{\frac{\pi}{6} + 2n\pi\}$
- 13) Solution of $\sin x = \frac{1}{\sqrt{2}}$ lies in _____ Quadrants.
a. \checkmark I, II b. I, III c. I, IV d. II, IV
- 14) Solution of $1 + \cos x = 0$ is _____ in $x \in [0, 2\pi]$
a. $x = 0$ b. $x = \frac{\pi}{2}$ c. $x = \frac{3\pi}{2}$ \checkmark d. $x = \pi$
- 15) $\{\frac{\pi}{4} + 2n\pi\} \cup \{\frac{3\pi}{4} + 2n\pi\}$ is the S.S of _____.
a. $\sin x = \frac{1}{2}$ \checkmark b. $\sin x = \frac{1}{\sqrt{2}}$ c. $\sin x = \frac{\sqrt{3}}{2}$ d. $\sin x = 0$