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**Govt. Ghazali Degree College, Jhang**

(Important Short Questions)

Course: Algebra and Trigonometry

Chapter # 14

Solutions of Trigonometric Equations

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Following short questions are selected from previous 5 years papers of different boards. Solve these at your own to perform well in annual exams.

1. Solve  $\sec^2\theta = \frac{4}{3}$  in  $[0, 2\pi]$ .
2. Solve  $\sin x + \cos x = 0$ , where  $x \in [0, 2\pi]$ .
3. Solve  $2\sin^2\theta - \sin\theta = 0$ , where  $\theta \in [0, 2\pi]$ .
4. Find the values of  $\theta \in [0, \pi]$ , if  $4\sin^2\theta - 8\cos\theta + 1 = 0$ .
5. Find the solution of  $\cos x - 1 = 0$  in  $[0, 2\pi]$ .
6. Solve the equation  $\sin x = \frac{1}{2}$ , where  $x \in [0, 2\pi]$ .
7. Solve the equation  $1 + \cos x = 0$ .
8. Solve the trigonometric equation  $\tan\theta = \frac{1}{\sqrt{3}}$ .
9. Find the solution of  $\sec x = -2$  which lie in  $[0, 2\pi]$ .
10. Find the solution of  $\sin x = -\frac{\sqrt{3}}{2}$  which lie in  $[0, 2\pi]$ .
11. Find the solution set of the equation  $\sin x = \frac{1}{2}$ .

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Best of Luck