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

57. Find the domain and range of *inverse cosecant* function.

57. Without using tables / calculator, show that $tan^{-1}\frac{5}{12} = sin^{-1}\frac{5}{13}$.

53. Without using tables / calculator, show that $Cos^{-1}\frac{4}{5} = Cot^{-1}\frac{4}{3}$.

54. Find the value of $Cos^{-1}(1)$ and $Cos^{-1}(\frac{-1}{2})$.

57. Find the value of $sec[sin^{-1}(-\frac{1}{2})]$.

56. Complete the formula $Tan^{-1}A + Tan^{-1}B =$:

57. Without using tables / calculator, evaluate $Cos^{-1}(\frac{\sqrt{3}}{2})$.

57. Without using tables / calculator, evaluate $sec(sin^{-1}\frac{\sqrt{3}}{2})$.

57. Show that $cos(2sin^{-1}x) = 1 - 2x^2$.

57. Show that $tan(sin^{-1}x) = \frac{x}{\sqrt{1-x^2}}$.

57. Prove that $cosec^{-1}x = \frac{\pi}{2} - sec^{-1}x$.

55. Prove that $Tan^{-1}\frac{1}{4} + Tan^{-1}\frac{1}{5} = Tan^{-1}\frac{9}{19}$.

Best of Luck