

$$n = 900 ; \bar{x} = 3.4 ; \mu = 3.2 , \sigma = 2.3$$

Assume that sample is drawn from a large population with mean 3.2 and S.D = 2.3

$$H_1 \text{ (Two Tailed Test)} : \mu \neq 3.2$$

$$\begin{aligned} H_0 : Z &= \frac{\bar{x} - \mu}{\sigma \sqrt{n}} = \frac{3.4 - 3.2}{2.3 / \sqrt{900}} = \frac{0.2}{2.3 / 30} \\ &= \frac{0.2}{2.3} \times 30 = \underline{\underline{2.608}} \end{aligned}$$

$$|Z| = 2.608 > 1.96$$

\therefore H_0 is accepted at 5% level of significance i.e. sample is drawn from population with mean 3.2 & S.D = 2.3.