

Assignment-2

Q In the Quant test of CAT Exam, the population standard deviation is known to be 100. A sample of 25 test dates has a mean of 520. Construct a 80% C.I about mean.

Ans $\sigma = 100$, $n = 25$, $\bar{x} = 520$

C.I = 80%

Significance value (α) = $1 - 80\%$

$$= 1 - \frac{80}{100} = 0.2$$

$$= 1 - 0.2 = 0.8$$

$$C.I = \bar{x} \pm z_{\alpha/2}$$

$$z_{\frac{0.01}{2}} = 0.01$$

(for left side) $1 - 0.01 = 0.99$

$$0.99 \rightarrow +1.2 = z\text{-table}$$

