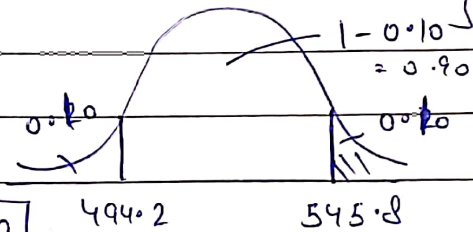


Ques 2

When S.D = 100,  $n = 25$ ,  $\bar{x} = 520$ , C.I = 80%.

point estimate  $\pm$  margin of error  $\left\{ \alpha = 1 - C.I = 1 - 0.80 = 0.20 \right\}$   
 $\bar{x} \pm z_{\alpha/2} \left( \frac{\sigma}{\sqrt{n}} \right)$

$520 \pm z_{0.10}$  } Acc. to z-table  $z_{0.10} =$   
Acc. to z table,  $0.90 = 1.29$



$$\text{Lower fence} = \bar{x} - z_{\alpha/2} \frac{\sigma}{\sqrt{n}}$$

$$\Rightarrow 520 - 1.29 \times \frac{100}{\sqrt{25}}$$

$$\Rightarrow 520 - 1.29 \times \frac{100}{5}$$

$$\Rightarrow \boxed{494.2}$$

$$\text{Higher fence} = \bar{x} + z_{\alpha/2} \frac{\sigma}{\sqrt{n}}$$

$$\Rightarrow 520 + 1.29 \times 20$$

$$\Rightarrow \boxed{545.8}$$