$n = 25 \qquad \bar{x} = 20, \quad s = 4$

1. Standard Error

$$\frac{s}{\sqrt{n}} = \frac{4}{5} = \underline{0.8}$$

2. Confidence interval of μ, with confidence level of 95%.

$\alpha = 0.05,$

$t_{0.025, 24} = 2.064$

The CI is

$$(20 - 2.064 \cdot 0.8,\ 20 + 2.064 \cdot 0.8)$$

$$= \underline{(18.3488,\ 21.6512)}$$

3. (i) We don't know

(ii) We don't know

(iii) Yes