C) 2.313 to 2.687.

59. A sample of 100 individual investors has a mean portfolio value of $28,000 with a standard deviation of $4,250. The 95% confidence interval for the population mean is *closest* to:

A) $19,500 to $28,333.

B) $27,159 to $28,842.

C) $27,575 to $28,425.

$\sqrt{20}$) = 2.313 to 2.687. (We must use the Student's t-distribution and reliability factors because of the small sample size.)

59. **Answer : B**

Confidence interval = mean ± $t_c\{S / \sqrt{n}\}$

= 28,000 ± (1.98) (4,250 / $\sqrt{100}$) or 27,159 to 28,842

If you use a *z*-statistic because of the large sample size, you get 28,000 ± (1.96) (4,250 / $\sqrt{100}$) = 27,167 to 28,833, which is closest to the correct answer.

60. **Answer : C**