To determine the p-value of the t-test given the 95% confidence interval for the difference in means of two populations, let's analyze the information provided:

1. \*\*Confidence Interval\*\*: The 95% confidence interval for the difference in means is (0.25, 2.40).

2. \*\*Hypothesis Test\*\*: We are testing \( H\_0: \mu\_1 = \mu\_2 \) vs. \( H\_A: \mu\_1 \neq \mu\_2 \).

3. \*\*Interpretation of the Confidence Interval\*\*:

- A 95% confidence interval means that we are 95% confident that the true difference in means lies within this interval.

- Since the interval (0.25, 2.40) does not include 0, it suggests that there is a statistically significant difference between \(\mu\_1\) and \(\mu\_2\) at the 5% significance level (which corresponds to a 95% confidence interval).

4. \*\*Relationship to p-value\*\*:

- If the confidence interval does not contain 0, it implies that we reject the null hypothesis \( H\_0: \mu\_1 = \mu\_2 \) at the 5% significance level.

- Therefore, the p-value associated with the t-test must be less than 0.05.

5. \*\*Two-tailed Test\*\*: Since we are dealing with a two-tailed test (\( H\_A: \mu\_1 \neq \mu\_2 \)), we need to consider the significance level for a two-tailed test:

- For a 95% confidence interval, the significance level is split into two tails, each with 2.5%.

- Thus, if the interval does not include 0, the p-value must be less than 0.05, and since it's a two-tailed test, it must be less than 0.025 in one tail.

Given this reasoning, the correct answer is:

(C) <0.025

This is because the p-value must be less than 0.025 for each tail in a two-tailed test to ensure that the total significance level remains below 0.05 when we reject the null hypothesis.