PES UNIVERSITY, Bangalore

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Department of Computer Science & Engineering

Statistics for Data Science

Assignment – Large Sample Tests for a Population Mean

Consider the following hypothesis test:

$$H_0: \mu \leq 25$$

$$H_a: \mu > 25$$

A sample of 40 provided a sample mean of 26.4. The population standard deviation is 6.

a. Compute the value of the test statistic.

b. What is the p-value?

c. At $\alpha = .01$, what is your conclusion?

d. What is the rejection rule using the critical value? What is your conclusion?