PES UNIVERSITY, Bangalore

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Department of Computer Science & Engineering

Statistics for Data Science

Assignment – Large Sample Tests for a Population Mean

1. Consider the following hypothesis test:

$H_0: \mu = 15$

$H_a: \mu \neq 15$

A sample of 50 provided a sample mean of 14.15. The population standard deviation is 3.

a. Compute the value of the test statistic.

b. What is the *p*-value?

c. At α = .05, what is your conclusion?

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