



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) A production line operation is designed to fill cartons with laundry detergent to a mean weight of 32 ounces. A sample of cartons is periodically selected and weighed to determine whether underfilling or overfilling is occurring. If the sample data lead to a conclusion of underfilling or overfilling, the production line will be shut down and adjusted to obtain proper filling.

- a. Formulate the null and alternative hypotheses that will help in deciding whether to shut down and adjust the production line.
- b. Comment on the conclusion and the decision when H_0 cannot be rejected.
- c. Comment on the conclusion and the decision when H_0 can be rejected.

2) What are the steps involved in performing a Hypothesis testing?