ASSIGNMENT 3

CS21BTECH11053

***Abstract*—From ICSE 2018 Class 12 Mathematics Examination**

Problem (15.11)**.** *Eleven bags of wheat flour, each marked 5 kg, actually contained the following weights of flour (in kg):*

Weights	4.97	5.05	5.08	5.03	5.00
5.06	5.08	4.98	5.04	5.07	5.00

TABLE I
WEIGHTS OF BAGS

Solution:

We will define random variable X such that $X \in \mathbb{R}$ and X represents the weight of the bag.

We are required to find the probability when random variable exercise $X > 5$. Note that the number of bags with $X > 5$ is given by

$$n(X > 5) = 7 \tag{1}$$

The sample space S consists of 11 bags. Hence

$$n(S) = 11 \tag{2}$$

Hence the probability where $X > 5$ from (1) and (2) is given by

$$P(X > 5) = \frac{n(X > 5)}{n(S)} \tag{3}$$

$$= \frac{7}{11} \tag{4}$$

$$= \boxed{0.636} \tag{5}$$