



# University of Vavuniya

## First Examination in Information Technology - 2019

First Semester - December 2020/January 2021

Held on October/November 2021

IT1152 Essentials of Statistics

Online Examination

Question-Set 1 of 2

- Allowed Time: **30 Minutes**
- Answer **all** questions
- This is a closed-book examination
- Non-programmable calculator is allowed to be used

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1. (a) The following data set represents the number of new computer accounts registered during ten consecutive days (Treat data as a population).

43 37 50 51 58 105 52 45 45 10

Calculate the mean, variance, and standard deviation.

[40%]

- (b) During some construction, a network blackout occurs on Monday with probability 0.7 and on Tuesday with probability 0.5. Suppose there is a probability of experiencing network blackouts on both Monday and Tuesday is 0.35. What is the probability that there is no blackout on Monday or Tuesday?

[20%]

- (c) Ninety percent of flights depart on time. Eighty percent of flights arrive on time. Seventy-five percent of flights depart on time and arrive on time. You are meeting a flight that departed on time. What is the probability that it will arrive on time?

[20%]

- (d) A computer program consists of two blocks written independently by two different programmers. The first block has an error with a probability of 0.2. The second block has an error with a probability of 0.3. If the program returns an error, what is the probability that there is an error in both blocks?

[20%]