



R/VLT

Daffodil International University
Department of Electrical and Electronic Engineering
Faculty of Engineering
Midterm Examination, Summer-2026

Course Code: 0542-221
Section: A, B, C, D
Full Marks: 25

Course Title: Probability and Statistics
Level-Term: L2-T2
Exam Date: June 29, 2026

Teacher's Initial: MAR, SS
Time: 1.5 Hours

[Answer all the following questions]

[The second right-most column indicates the COs with the respective Bloom's level]
[The right-most column indicates the assigned marks]

- Q1. a) **Explain** parameter and statistics with example. CO-1 5
b) **Identify** the following variables "type" and "level of measurement" with proper justifications: C(2)
• Circuit ID
• Number of Faults per Day
• Phone Number

- Q2. Two transformers are tested for their output voltage (in volts) over five trials. The recorded results are: CO-3 9
C(3)

Transformer A:	130	180	100	120	140
Transformer B:	122	126	127	130	132

- a) **Compute** the average voltage output for transformer A. 134
b) **Identify** which transformer serves customers with more uniform output by applying the most appropriate statistical method. B = 2.77
c) **Calculate** the skewness for both transformers by calculating coefficient of skewness. 0.3984

- Q3. In an Electronics Laboratory, the power consumption values (in watts, W) of 12 devices were recorded as: CO-3 5
C(3)

18	22	15	30	24	28	20	16	35	25	32	19
----	----	----	----	----	----	----	----	----	----	----	----

- a) **Construct** a frequency distribution table using an appropriate class interval.
b) **Illustrate** an appropriate graph for the above data.

- Q4. An Electrical Engineering student is monitoring the current flows (in amperes, A) in 10 circuits. The measured currents are: CO-3 6
C(3)

8	9	11	12	14	17	19	21	35	45
---	---	----	----	----	----	----	----	----	----

- a) **Construct** a Box-whisker plot for the data identify any outliers, if present.
b) **Choose** the most appropriate measure of central tendency for this dataset and justify your answer.

15-20

