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Daffodil International University

Department of Electrical and Electronic Engineering Faculty of Engineering

Class test-02, Summer-2026, Sec: B

Course Code: 0542-221, Course Title: Probability &Statistics

Time: 30 Mints. **Marks: 15**

1.	An Electrical and Electronic Engineering (EEE) student is conducting a lab experiment to study the effect of temperature (°C) on the resistance (Ω) of a resistor.	12

Temperature (°C) (x)	10	15	20	25	30	35
Resistance (Ω) (y)	55	50	45	40	35	30

i) **Illustrate** scatter plot

ii) Calculate the correlation coefficient and Interpret the result.

iii) **Interpret** the meaning of r^2=90.5% in this study.

2.	Compare linear and non-linear correlation with suitable EEE related examples for each.	3