



Daffodil International University
Faculty of Business & Entrepreneurship
Department of Business Administration
Course Title: Statistics for Decision-Making
Course Code: 0542-213

Semester: Summer 2025
Time: 1 Hour 30 minutes
Section: All

Examination: Mid Term
Full Marks: 25
Teachers' Initial: KH, ARE, JI

[NB: Answer all the following questions]

SL		Questions	[CLO, Level]	Marks
01.	a)	Explain the concept of Statistics and classify its types.	[CLO-2, L-2]	2
	b)	Explain the following terms with appropriate example: (i) Parameter, (ii) Statistic.	[CLO-2, L-2]	1
	c)	Compare the different types of variables with examples.	[CLO-2, L-2]	2
02.		The Quick Change Oil Company has a number of outlets in the metropolitan Seattle area. The daily number of oil changes at the Oak Street outlet in the past 20 days are: 45, 70, 70, 55, 75, 73, 70, 65, 68, 60, 74, 83, 80, 58, 68, 85, 90, 64, 75, 82.		
	a)	Utilize Sturges' formula to choose the appropriate number of class intervals and the corresponding class width.	[CLO-3, L-3]	2
	b)	Construct a frequency distribution table for this data set and draw histogram.	[CLO-3, L-3]	3
03.		A small company has 12 employees. Their commuting times from home to work are 23, 36, 12, 23, 47, 32, 8, 12, 26, 31, 18, and 28 respectively.		
	a)	Solve for the mean and median.	[CLO-3, L-3]	2
	b)	Make use of the given data to compute the standard deviation, and coefficient of variation.	[CLO-3, L-3]	4
04		The following data give money (in dollars) spent on textbook by 12 students. 30, 24, 25, 33, 40, 53, 42, 38, 45, 49, 57, 33		
	a)	Construct a stem-and leaf display for these data.	[CLO-3, L-3]	1
	b)	Utilize the given data to find the three quartiles measures and IQR.	[CLO-3, L-3]	3
5.		We take a sample of seven households from a small city and collect information on their incomes and food expenditures for the last month. The information is obtained (in hundreds of dollars): Income: 55, 83, 38, 61, 33, 49, 67 Food expenditure: 14, 24, 13, 16, 9, 15, 17		
	a)	Analyze the data and fit the regression equation with interpretation.	[CLO-4, L-4]	3
	b)	Examine the regression equation to find the value of food expenditure when income is 50.	[CLO-4, L-4]	2